



# Technical Memorandum 33: Aquatic Resource Delineation Report

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in support of the  
Environmental Impact Statement

## West Davis Corridor Project

Federal Highway Administration  
Utah Department of Transportation



UDOT Project No. S-0067(14)0

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**Revised July 2017**



## Executive Summary

On behalf of the Utah Department of Transportation, HDR Engineering, Inc. has prepared this aquatic resource delineation report in support of a proposed roadway project in western Davis and Weber Counties known as the West Davis Corridor Project. HDR and other members of the West Davis Corridor Project team conducted fieldwork for the delineation in 2012, 2013, 2016, and 2017. The delineation was completed in accordance with the U.S. Army Corps of Engineers *Wetland Delineation Manual, Technical Report Y-87-1* (USACE 1987), the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region, version 2* (USACE 2008), and U.S. Army Corps of Engineers *Regulatory Guidance Letters* and joint agency regulations, policies, and guidance.

The entire delineation survey area is about 4,416 acres and contains a total of 793.50 acres of aquatic resources. These resources consist of 196 wetlands (emergent marsh, wet meadow, and playa) that total 732.65 acres. Wetlands in the survey area provide important habitats for wildlife, especially migratory birds, and also provide water quality and hydrology functions. A separate report, West Davis Corridor Wetland Functional Assessment Report, describes methods and results of the functional assessment conducted for the delineated wetlands. The survey area also contains 10,966 linear feet (3.81 acres) of perennial and intermittent stream channels, 40.80 acres of open water ponds, and 58,076 linear feet (16.24 acres) of open channel canals and ditches/drainages.



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## Acronyms and Abbreviations

CFR	Code of Federal Regulations
CWA	Clean Water Act
EPA	U.S. Environmental Protection Agency
FACW	Facultative wetland - plants that usually occur in wetlands, but may occur in non-wetlands
FAC	Facultative - plants that occur in wetlands and non-wetlands
FACU	Facultative upland - plants that usually occur in non-wetlands, but may occur in wetlands
GIS	geographic information systems
GPS	global positioning system
HDR	HDR Engineering, Inc.
NEPA	National Environmental Policy Act
NL	Not listed - plants that are not listed on the NWPL and therefore assumed upland
NRCS	Natural Resource Conservation Service
NWI	National Wetlands Inventory
NWPL	National Wetlands Plant List
OBL	Obligate wetland - plants that almost always occur in wetlands
OHWM	Ordinary High Water Mark
PEM	palustrine emergent
Project	West Davis Corridor Project
PUB	palustrine unconsolidated bottom
TNC	The Nature Conservancy
TNW	traditional navigable waters
UPL	Upland - plants that almost never occur in wetlands
UDOT	Utah Department of Transportation
USACE	U.S. Army Corps of Engineers
USC	United States Code
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
WDC	West Davis Corridor
WOUS	Waters of the United States

## 2.0 Introduction

On behalf of the Utah Department of Transportation (UDOT), HDR Engineering, Inc. (HDR) has prepared this aquatic resource delineation report in support of a proposed roadway project in western Davis and Weber Counties known as the West Davis Corridor (WDC) Project. The purpose of the delineation is to identify wetlands and other aquatic resources within the delineation survey area (survey area; see Figure 1) for the WDC Project. A separate report, West Davis Corridor Wetland Functional Assessment Report, describes methods and results of the functional assessment conducted for the delineated wetlands.

UDOT proposes to construct the new road in an area that supports wetlands and other aquatic resources, such as streams, that are subject to regulation under the Clean Water Act (CWA; 33 United States Code [USC] 1344). The purpose of this technical memorandum is to delineate, describe, and map the presence and extent of aquatic resources in the survey area. The results of the delineation are preliminary until verified by the U.S. Army Corps of Engineers (USACE).

### What are Aquatic Resources?

Aquatic resources are areas that satisfy criteria prescribed by USACE delineation procedures and guidance (see Section 3.0) and include wetlands, streams and other waterways, playas/mudflats, and open water ponds, lakes, and reservoirs.

As described in Section 2.0, not all aquatic resources are subject to regulation under the Clean Water Act.

## 2.1 Delineation Survey Area Description

The survey area is about 4,416 acres and extends northward from the Farmington–Centerville city boundary to 1800 North in West Point, Utah. It includes the sections listed below in Table 2-1 that are shown on the U.S. Geological Survey 7.5-Minute Series Quadrangle Topographic maps for Farmington, Kaysville, Clearfield, and Roy. A vicinity map showing the project location is included as Figure 1.

**Table 2-1. Survey Area Public Land Survey System Sections**

Quadrant	Section	Township Number	Range Number
NW, SW	6	2N	1E
NW	7	2N	1E
SW	19	3N	1E
NW, SW	30	3N	1E
NW, SW	31	3N	1E
SW	4	3N	1W
NE, NW, SW, SE	5	3N	1W
NE	6	3N	1W
NE	8	3N	1W
NW, SW, SE	9	3N	1W
SW	13	3N	1W

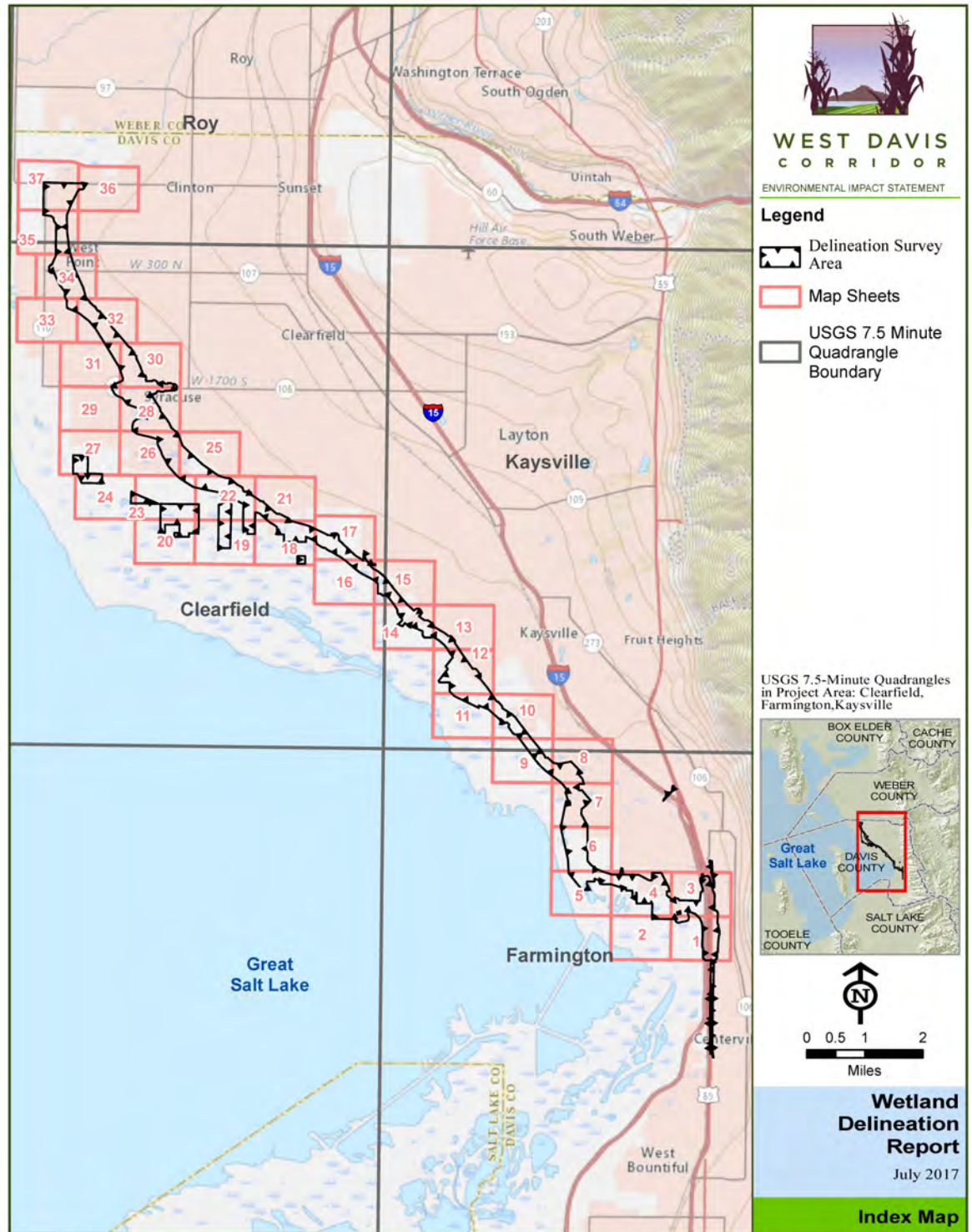
**Table 2-1. Survey Area Public Land Survey System Sections**

Quadrant	Section	Township Number	Range Number
NE, NW, SW, SE	15	3N	1W
NE, NW, SW, SE	22	3N	1W
NE, NW, SW, SE	25	3N	1W
SE	24	3N	1W
NE, NW, SE	26	3N	1W
NE	27	3N	1W
NE, NW, SE	36	3N	1W
SW	30	4N	1W
NE, NW, SW, SE	31	4N	1W
SW	32	4N	1W
NE, SW	6	4N	2W
NW, SW, SE	5	4N	2W
NE, NW, SE	8	4N	2W
NW, SE, SW	9	4N	2W
NE, NW, SW, SE	16	4N	2W
NE	17	4N	2W
NW, SW	20	4N	2W
NE, SE, SW	21	4N	2W
NW, SE, SW	22	4N	2W
SW	23	4N	2W
NW, SE, SW	25	4N	2W
NE, NW, SE	26	4N	2W
NE, NW, SE	27	4N	2W
NW	36	4N	2W
SE, SW	30	5N	2W
SW	29	5N	2W
NE, NW, SE	31	5N	2W

### 2.1.1 Directions to the Survey Area

The survey area is accessible from Interstate 15 (I-15) from exits in Farmington, Kaysville, Layton, Syracuse, and Clearfield. The interior parts of the survey area are accessible by local arterial and residential roads. The survey area is shown in Figure 1 which includes a map sheet index corresponding to the delineation map series in Appendix A.

**Figure 1. West Davis Corridor Aquatic Resource Survey Area – Site Vicinity and Index Map**



Friday, July 07, 2017 9:43:57 AM SRIGARD  
\\bel-srv03\\SLC\_GIS\\Projects\\UDOT\\118735\_WestDavisEIS\\map\_docs\\mxd\\wetlands\\map\_ap\_WDC\_WetDelin2017\_Report\_Index.mxd

## 2.2 Contact Information for the Applicant and Owner

The applicant and owner for this project are the same agency:

Utah Department of Transportation (UDOT) Region 1  
166 W. Southwell Street  
Ogden, Utah 84404-4194

Attention: Randy Jefferies, Project Manager  
rjefferies@utah.gov  
(801) 791-1059

Land in the survey area is owned by multiple public and private entities. Contact and access information for landowners can be coordinated as necessary.

## 2.3 Contact Information for the Wetland Delineation Consultants

The delineation was performed by:

HDR Engineering, Inc.  
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General questions can be directed to  
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## 3.0 Regulatory Setting

As described in Section 328 of Chapter 33 in the Code of Federal Regulations (CFR), the objective of the CWA is to maintain and restore the chemical, physical, and biological integrity of the waters of the United States (33 CFR Part 328 Section 328.4). Any person, firm, or agency planning to alter or work in waters of the United States (WOUS), including discharging dredged or fill material, must first obtain authorization from USACE under Section 404 of the Clean Water Act and, if applicable, Section 10 of the Rivers and Harbors Act of 1899 (33 USC 403) for work within navigable WOUS. Permits, licenses, variances, or similar authorization might also be required by other federal, state, and local statutes. The following sections describe the regulatory framework that could apply to areas within the delineation survey boundary area that are potentially subject to federal and state jurisdiction.



### 3.1 Section 404 of the Clean Water Act

*Waters of the U.S.* is the encompassing term for areas that qualify for federal regulation under Section 404 of the CWA. Section 404 of the CWA gives the U.S. Environmental Protection Agency (EPA) and USACE regulatory and permitting authority regarding discharging dredged or fill material into “navigable waters of the United States.” Section 502(7) of the CWA defines *navigable waters* as “waters of the United States, including territorial seas.”

33 CFR 328 defines the term *waters of the United States* as it applies to the jurisdictional limits of the authority of the USACE under the CWA. A summary of this definition of WOUS in 33 CFR 328.3 includes (1) waters used for commerce and subject to tides; (2) interstate waters and wetlands; (3) “other waters” such as intrastate lakes, rivers, streams, and wetlands; (4) impoundments of waters; (5) tributaries of waters; (6) territorial seas; and (7) wetlands adjacent to waters. Therefore, for purposes of determining USACE jurisdiction under the CWA, *navigable waters* as defined in the CWA are the same as WOUS, defined in the CFR above. WOUS include non-isolated “wetlands” and “other WOUS”.

Other WOUS refer to unvegetated waterways and other water bodies with a defined bed and bank, such as drainages, creeks, rivers, and lakes. This approximately translates to the bank-to-bank portion of water bodies, up to the ordinary high-water mark (OHWM). “Other waters” typically lack hydrophytic vegetation and might also lack hydric soils. Jurisdiction in non-tidal areas extends to the OHWM, which is defined as:

... that line on the shore established by the fluctuations of water and indicated by physical characteristics such as clear, natural line impresses on the bank, shelving, changes in the characteristics of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas. [33 CFR 328.3(e); also 51 Federal Register (FR) 41250, November 13, 1986, as amended at 58 FR 45036, August 25, 1993]

Wetlands are defined as:

... those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas. [33 CFR 328.3(b); 40 CFR 230.3(t)].

The guidelines for implementing Section 404 of the CWA are referred to as the Section 404(b)(1) Guidelines and were developed by EPA in conjunction with USACE (40 CFR 230). The Guidelines allow the discharge of dredged or fill material into the aquatic system only if there is no practicable alternative that would have less adverse impacts.

On June 29, 2015, the EPA and the USACE jointly published the *Clean Water Rule: Definition of “Waters of the United States”* (Clean Water Rule) and it became effective August 28, 2015 (40 CFR 230.3). The rule interprets two key Supreme Court decisions, often referred to as *Rapanos* and *SWANCC*. *Rapanos* is the 2006 Supreme Court decision in the consolidated cases of *Rapanos v. United States* and *Carabell v. United States Army Corps of*



Engineers, 547 UW 715 (2006); SWANCC is the 2001 Supreme Court decision in *Solid Waste Agency of Northern Cook County v. Army Corps of Engineers*, 531 U.S. 159 (2001). The Clean Water Rule addresses both wetlands and waterbodies and is limited to whether CWA applies, superseding prior 1986 regulations and applicable guidance. However, a nationwide stay was issued by the U.S. Court of Appeals for the 6<sup>th</sup> Circuit on October 9, 2015, which blocked the implementation of the Clean Water Rule. In the meantime, the USACE is not implementing the Clean Water Rule, and is using the 1986 regulations and applicable guidance (those in effect prior to August 28, 2015) in making jurisdictional determinations or taking other actions based on the definition of WOUS.

### 3.1.1 Significant Nexus of Tributaries

The USACE and the EPA issued joint guidance December 2, 2008 on implementing the June 19, 2006 U.S. Supreme Court opinions resulting from *Rapanos v. United States* and *Carabell v. United States* (*Rapanos*) cases (USACE 2008a). This guidance states that the agencies will assert jurisdiction over (1) traditional navigable waters (TNW), (2) wetlands adjacent to TNW, (3) non-navigable tributaries of TNW that are relatively permanent where the tributaries typically flow year around or have continuous flow at least seasonally (e.g., typically three months), and (4) wetlands that abut such tributaries. A “significant nexus” determination will be made for non-navigable tributaries that are not relatively permanent and their adjacent wetlands. Such features that are determined to have a “significant nexus” to a TNW will also be subject to CWA jurisdiction. A significant nexus requires that there be “more than an insubstantial or speculative effect on the chemical, physical, and/or biological integrity of a TNW”. This guidance also states the following features will generally not be subject to CWA jurisdiction: swales or erosional features (e.g., gullies, small washes characterized by low volume, infrequent or short duration flow) and ditches (including roadside ditches) excavated wholly in and draining only uplands and that do not carry a relatively permanent flow of water.

### 3.1.2 Isolated Areas Excluded from Section 404 Jurisdiction

Some wetlands and other aquatic resources might also be considered outside of USACE jurisdiction as a result of the Supreme Court’s decision in *Solid Waste Agency of Northern Cook County (SWANCC) v. United States Army Corps of Engineers* (531 U.S. 159 [2001]). Isolated aquatic resources are those areas that do not have a surface or groundwater connection other significant nexus to, and are not adjacent to, a navigable “water of the U.S.” and do not otherwise exhibit an interstate commerce connection.

## 3.2 Fish and Wildlife Coordination Act

Under the Fish and Wildlife Coordination Act (16 USC 661–666), project proponents are required to consult with the U.S. Fish and Wildlife Service (USFWS) and the appropriate state wildlife agency for any federal project in which the waters of any stream or other body of water would be impounded, diverted, deepened, or otherwise modified. These agencies prepare reports and recommendations that document the expected effects of the project on

wildlife and identify measures that could be adopted to prevent loss or damage to wildlife resources. The term *wildlife* includes both animals and plants. The provisions of the Fish and Wildlife Coordination Act are implemented through the National Environmental Policy Act (NEPA) process and the Section 404 permit process.

### **3.3 Executive Order 11990 for the Protection of Wetlands**

Executive Order 11990 for the Protection of Wetlands (May 24, 1977) establishes a national policy to avoid adverse impacts on wetlands whenever there is a practicable alternative. On federally funded projects, impacts on wetlands must be identified in the environmental document. Alternatives that avoid wetlands must be considered. If wetland impacts cannot be avoided, then all practicable measures to minimize harm must be included. This must be documented in a specific “Wetlands Only Practicable Alternative Finding” in the final environmental document. An additional requirement is to provide early public involvement in projects affecting wetlands.

The Federal Highway Administration (FHWA) provides technical assistance in meeting these criteria (FHWA Technical Advisory 6640.8A) and reviews environmental documents for compliance.

### **3.4 Section 401 of the Clean Water Act**

Section 401 of the CWA requires state certification for any permit or license issued by a federal agency for an activity that could result in a discharge of dredged or fill material into WOUS. This requirement allows each State to have input into federally approved projects that could affect its waters (rivers, streams, lakes, and wetlands) and to ensure the projects will comply with state water quality standards and any other water quality requirements of state law. Any Section 401 certification in Utah also ensures that the project will not adversely affect impaired waters (waters that do not meet water quality standards) and that the project complies with applicable water quality improvement plans.

### **3.5 Utah Stream Alteration Program**

Section 73-3-29 of the Utah Code requires any person, governmental agency, or other organization wishing to alter the bed or banks of a natural stream to obtain written authorization from the State Engineer prior to beginning work. Natural streams are considered any natural waterway that receives enough water to develop an ecosystem that differs from the surrounding upland environment. Although it cannot be applied to permit wetland impacts, USACE Programmatic General Permit 10 allows an applicant to obtain both state approval and authorization under CWA 404 of through a single application process.

## **4.0 Delineation Methodology**

### **4.1 Preliminary Data Gathering and Synthesis**

Prior to conducting delineation fieldwork, the delineation team reviewed information from multiple sources. To help develop a background knowledge of the physical features in the survey area, the team reviewed data and referenced maps of potential wetland areas collected from previous WDC wetland and wildlife fieldwork that was conducted in 2010 and 2011. The team also obtained information related to topography, drainage, soils, water features, and documented wetlands. Additional information sources included:

- Aerial photographs of the survey area and surrounding areas from 2011, 2012, 2013, 2016 and prior years in some cases
- USFWS National Wetland Inventory (NWI) maps (see Appendix E)
- USACE delineation manuals and delineation reference guides (described below in Section 3.3)
- Soil Survey of Davis-Weber Area, Utah (NRCS 1968)
- National Hydric Soils List for Utah (NRCS 2016a)
- Natural Resources Conservation Service's (NRCS) web soil survey (NRCS 2017; see Appendix G)

### **4.2 Delineation Boundaries**

All areas within the approximately 4,416-acre survey area were included in the delineation.

### **4.3 Delineation Procedures**

The delineation team conducted fieldwork for the delineation between May 2 and September 26, 2012, between April 24 and June 26, 2013, between July 18, 2016 and September 28, 2016, and between May 12 and June 1, 2017. During and following periods of delineation fieldwork, the delineation team coordinated with UDOT wetland specialists and USACE. The UDOT wetland program manager participated in fieldwork during several days in 2012 and 2013. On October 3, 2012, the project team conducted a field review meeting of several wetland areas with representatives from USACE, EPA, and UDOT. Although this field review meeting did not constitute a formal review of delineated wetlands, the delineation team incorporated guidance from this meeting to make revisions to work previously completed and it was used to help guide subsequent field investigations. Particular coordination items are described in corresponding subsections for delineation procedures and existing conditions (Section 4.0).

Based on coordination with UDOT and USACE, delineation fieldwork in 2016 included review by visual inspection and follow-up investigations as needed of wetlands delineated in

2012 and 2013, and delineation of new survey areas that encompassed potential compensatory mitigation sites. Some areas in which delineation fieldwork was conducted in 2012 have been excluded from the current survey area because they are no longer being considered among potential WDC alignment options. In May and July of 2017, the USACE reviewed delineation information and conducted field reviews. Follow-up investigations in 2017 focused on interest areas provided by the USACE from reviewing delineation data to date.

The delineation was conducted in accordance with the USACE *Wetland Delineation Manual, Technical Report Y-87-1* (USACE 1987), the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region, version 2* (USACE 2008), and USACE *Regulatory Guidance Letters* and joint agency regulations, policies, and guidance.

The entire survey area was assessed to determine the presence or absence of aquatic features. The routine method was applied by selecting data collection point locations in the field. These sampling points were placed at locations where landform, vegetative, or hydrologic characteristics indicated the potential for the occurrence of wetlands. A minimum of one set of paired data points (one within a wetland and one just outside wetland boundaries) was established to help delineate each wetland or wetland complex. Additional data points were located as needed to help determine wetland boundaries. Detailed information on vegetation, soils, and hydrologic characteristics was collected for each data point and used to determine whether an area qualifies as a wetland and to help identify the wetland boundaries.

Delineation data forms that document the basis for determining whether an area qualifies as a wetland were completed for data collection point locations and are included as Appendix B, Wetland Delineation Forms. In 2016, all previously delineated wetlands were reviewed in the field. Where wetland boundaries appeared unchanged from delineation boundaries identified in 2012 and 2013, the delineation team relied on data forms completed in 2012 and 2013. Where wetland boundaries appeared to have changed or were in question, the delineation team established new data collection point locations as determined necessary in accordance with the routine method.

Based on information gathered from sample points and observable changes in elevation and plant communities, wetland boundaries within in the survey area were mapped in the field using a handheld sub-meter-accurate global positioning system (GPS) unit. Other aquatic resources were mapped to the OHWM by GPS in the field. In some cases, polyline GPS data was collected for aquatic resource boundaries that was converted to polygon data in GIS (ArcMap). GPS data were exported into ArcMap and edited based on a review of aerial photographs followed by additional field visits to produce and refine delineation maps for the survey area. These data were also used to calculate the lengths of waterways and acreages of wetland features in the survey area.

*Hydrophytic vegetation* is present when a plant community is dominated by species that can tolerate prolonged conditions of soil saturation or inundation. *Hydric soils* are soils that are saturated, flooded, or ponded sufficiently to develop anaerobic conditions (lacking oxygen) in the upper portion (toward surface) of soils. *Wetland hydrology* generally includes areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support hydrophytic vegetation and develop hydric soils.

### 4.3.1 Wetlands

Determination of the occurrence of wetlands is based on the presence or absence of hydrophytic (wetland) vegetation, hydric (wetland) soils, and wetland hydrology. The presence of all three of the criteria is necessary for an area to be designated as a wetland unless a parameter is significantly disturbed or naturally problematic. Wetland boundaries are considered to be a line across which the vegetation, soils, and hydrologic characteristics began/cease to meet wetland criteria.

### Vegetation

Hydrophytic vegetation includes plants that are adapted to grow in water, or in substrate that is at least periodically deficient in oxygen as a result of excessive water contact. Hydrophytic vegetation indicators include prevalence of hydrophytic vegetation (majority of dominant plant species that are facultative or obligate wetland plants as listed in the *National Wetland Plant List* (NWPL) and morphological or physiological adaptations to saturated soil conditions. Table 4-1 describes the NWPL indicator status system assigned to plant species for the purpose of delineating wetlands (Lichvar and others 2012).

**Table 4-1. NWPL Wetland Indicator Status System**

Arid West Indicator Status	Indicator Symbol	Definition
Obligate	OBL	Plants that almost always occur in wetlands.
Facultative wetland	FACW	Plants that usually occur in wetlands, but may occur in non-wetlands.
Facultative	FAC	Plants that occur in wetlands and non-wetlands.
Facultative upland	FACU	Plants that usually occur in non-wetlands but may occur in wetlands.
Upland plants	UPL	Plants that almost never occur in wetlands.
Not listed	NL	Plants that are not listed on the NWPL Plant Indicator Status List and are therefore assumed to be upland plants unless otherwise noted.

Source: Lichvar and others 2012

Vegetation was documented within a sample plot surrounding each sampling point location. Each polygon area was visually inspected and plant species were identified. If an area was substantially different in soils, vegetation, hydrology, or condition, the polygon was divided into two polygons in order to characterize each area separately. Vegetation was considered hydrophytic when over 50% of the dominant species had an indicator status of facultative (FAC), facultative wetland (FACW), or obligate (OBL) or when the prevalence index was less than 3.0 in cases where the dominance was less than or equal to 50%. To identify the

appropriate indicator status of each plant species recorded, the delineation team referenced the version of the NWPL *Arid West Regional Wetland Plant List* that was available for delineation fieldwork and analysis (Lichvar 2012; Lichvar 2013; Lichvar and others 2016). In 2016, the delineation team also considered whether changes between the 2016 NWPL for the Arid West Region and prior versions warranted additional field investigations for previously delineated wetlands. A list of observed plant species, including their NWPL 2016 indicator status, is provided in Appendix D.

## Soils

Hydric soils are soils that are saturated, flooded, or ponded for long enough during the growing season to develop anaerobic conditions in the upper part of the soil profile. Anaerobic conditions favor the growth and regeneration of hydrophytic vegetation. Hydric soil indicators can include organic soils (histosols), mineral soils saturated and rich in organics (histic epipedons), sulfidic odor, low dissolved oxygen concentration (aquic moisture regime) and reducing conditions, gleyed and/or low chroma soils, soils listed on national, state, or local hydric soils lists, and iron and manganese concentrations close to the soil surface. In accordance with USACE methodology prescribed in the Arid West regional supplement, soil profiles were investigated at sampling points in the survey area and were examined for indicators of hydric conditions. A standard Munsell® soil color chart was used to determine colors of the soil matrix and redoximorphic features (Munsell Color 2009).

## Hydrology

The term “wetland hydrology” encompasses all hydrologic characteristics of areas that are periodically inundated or have soils saturated to the surface at some time during the growing season. Areas with evident characteristics of wetland hydrology are those where the presence of water has an overriding influence on characteristics of vegetation and soils due to anaerobic and reducing conditions, respectively. Wetland hydrology indicators include observing obvious characteristics such as surface water, soil saturation, and water table depth. Other indicators include soil cracking, salt crust, drainage patterns, water-stained leaves, and presence of oxidized rhizospheres. Hydrology was evaluated at each wetland determination sampling point location within the survey area.

### 4.3.2 Other Aquatic Resources

This delineation also evaluated the presence of aquatic resources other than wetlands potentially subject to USACE jurisdiction. Non-wetland aquatic features were delineated based on the presence of bed and bank, evidence of an OHWM (USACE 2005; Lichvar and McColley 2008), and evidence of flow of water (USACE 2008a). Non-wetland features were delineated along the OHWM. If a feature did not exhibit bed and bank and an OHWM, and did not contain a predominance of hydrophytic vegetation, it was not further evaluated as a potential wetland, and it was not considered to be an aquatic resource. Types of other aquatic resources evaluated include streams, other linear features such as drainage channels, open water ponds, and mineral flat basins classified as “playa”.



## Types of Streams

### Perennial

Perennial water features are those that usually flow all year during typical years, or with lower to no flows during short periods during drier years. Precipitation runoff is not a primary water source but can supplement stream flow.

### Intermittent

Intermittent stream features are channels that flow most of or during parts of the year when groundwater (within the channel or up-gradient) is in sufficient supply to allow surface water flows. During dry, lower groundwater periods, these channels are likely not to be flowing or may even have their channels dry. Rainfall can also supplement stream flow but is not the primary water source.

### Ephemeral

Ephemeral features are those that are supported solely by rainfall events, and are always above the water table. These features are only likely to flow during and shortly after precipitation events or periods of rainfall. Ephemeral channels can be distinguished by swales and erosion features by receiving flows sufficiently often (typically at least every year or so) to maintain a clear and definable OHWM.

#### What are ephemeral, intermittent, and perennial streams?

An *ephemeral stream* (or wash) generally flows only during or immediately after a precipitation event. An *intermittent stream* usually flows seasonally. A *perennial stream* typically flows year-round.

### 4.3.3 Observations Pertaining to Jurisdictional Status of Delineated Aquatic Resources

USACE considers an area to be a wetland if it is characterized by the three parameters of hydrophytic vegetation, hydric soils, and wetland hydrology. Other aquatic resources are identified based on evidence of an OHWM. However, as described in Section 2.1, for these resources to be subject to regulation under the CWA, they also must meet jurisdictional criteria. Under current guidance, the USACE asserts jurisdiction over wetlands that are adjacent to a traditional navigable waterbody (TNW), relatively permanent non-navigable tributaries of TNW, and wetlands that directly abut relatively permanent non-navigable tributaries of TNW (USACE 2008a). A fact-specific analysis is employed to determine whether wetlands that are adjacent but not abutting to non-navigable tributaries have a significant nexus with a TNW (USACE 2008a). Wetlands adjacent to non-navigable tributaries that lack a significant nexus and any wetlands determined to be isolated would not be subject to CWA jurisdiction if they do not have an identifiable connection to interstate or foreign commerce and they do not include interstate waters.

The survey area is located in the general vicinity of the eastern shorelands of the Great Salt Lake and large portions of the survey are either within or adjacent to an expansive complex of wetlands and other aquatic resources that intersect the upper limits of the Great Salt Lake. Because the Great Salt Lake is a TNW, wetlands adjacent to the lake are jurisdictional. In



1 portions of the survey area that are not adjacent to the Great Salt Lake, the delineation team  
2 identified potential connections and evaluated whether wetland were abutting or otherwise  
3 adjacent to non-navigable tributaries. The delineation team also evaluated whether linear  
4 features, such as ditches, were excavated in wetlands or uplands and carried a relatively  
5 permanent flow of water.



## 5.0 Environmental Setting

The survey area is located within urban, agricultural, and open space areas. The survey area crosses numerous existing arterial roads and transportation corridors including I-15 and a Union Pacific Railroad line. The majority of the survey area is characterized as agricultural land that is typically located near or adjacent to both developed (residential and commercial) areas and open space areas including other agricultural lands and areas protected for wildlife habitat. Wetlands and other habitats in the survey area pertain to the Great Salt Lake ecosystem.

Topography in the survey area includes relatively subtle depressions, gently lake sloped terraces and plains, small rolling knolls, and the toe of a relatively large bluff. The survey area ranges in elevation from just below 4,212 to around 4,260 feet above mean sea level (AMSL) and generally decreases from east to west.

## 5.1 Existing Field Conditions

The delineation field reconnaissance was conducted between May 2 and September 26, 2012, between April 24 and June 26, 2013, between July 18 and September 28, 2016, and between May 12 and June 1, 2017. During this time, temperatures were mainly in the middle to high 60s, 70s, 80s and 90s (degrees Fahrenheit), and, in general, temperatures were average for the time of year (USCD 2017). Table 5-1 provides overall and monthly temperature, precipitation, and snowfall averages for the Salt Lake City, Utah area.

**Table 5-1. Climate Data Summary for Salt Lake City: 2011 - 2016**

Overall Climate Averages for Salt Lake City, Utah													
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual Total
Average high temperature (°F)	38.0	44.0	53.0	61.0	71.0	82.0	90.0	89.0	78.0	65.0	50.0	40.0	
Average low temperature (°F)	26.0	31.0	38.0	43.0	52.0	61.0	69.0	67.0	58.0	46.0	36.0	27.0	
Av. precipitation (inches)	1.5	1.5	2.2	2.3	2.1	1.1	0.6	0.7	1.5	1.7	1.8	1.6	18.6
Average snowfall (inches)	11.0	10.0	6.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	7.0	10.0	47.0
Climate Data for Salt Lake City, Utah, 2011													
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year Total
Average high temperature (°F)	35.0	43.4	54.6	55.2	59.5	79.6	81.1	91.3	81.7	64.6	45.2	36.7	
Average low temperature (°F)	25.1	29.5	38.9	38.7	43.3	59.0	63.6	69.7	60.7	47.3	31.5	25.8	19.6
Precipitation (inches)	1.0	0.9	2.6	7.4	5.1	1.2	0.4	0.0	0.0	0.1	0.9	0.0	61.3
Snowfall (inches)	7.5	9.7	10.0	28.5	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.6	

**Table 5-1. Climate Data Summary for Salt Lake City: 2011 - 2016**

Climate Data for Salt Lake City, Utah, 2012													
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year Total
Average high temperature (°F)	40.8	44.7°	58.6	59.9	74.4	84.0	86.4	88.5	63.7	54.3	51.9	38.7	
Average low temperature (°F)	25.4	31.2	41.8	42.0	53.2	60.8	66.8	69.0	48.3	42.2	37.3	29.0	
Precipitation (inches)	1.6	0.7	0.5	2.2	0.8	0.0	0.7	0.1	0.7	1.3	1.2	1.3	11.1
Snowfall (inches)	5.9	3.1	6.7	0.1	0.0	0.0	0.0	0.0	0.0	0.7	15.0	13.0	44.5
Climate Data for Salt Lake City, Utah, 2013													
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year Total
Average high temperature (°F)	24.5	38.2	53.0	57.5	65.7	71.9	83.8	81.2	68.8	60.7	45.3	28.1	
Average low temperature (°F)	15.1	25.4	37.0	40.9	48.9	48.2	65.1	63.5	53.3	44.4	33.7	17.8	
Precipitation (inches)	0.9	0.5	0.6	2.4	1.1	0.0	1.0	0.3	1.1	0.8	0.6	0.3	9.6
Snowfall (inches)	21.1	11.1	1.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	2.5	14.0	49.8
Climate Data for Salt Lake City, Utah, 2014													
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year Total
Average high temperature (°F)	35.7	42.9	55.2	62.0	67.6	64.2	83.1	85.2	78.7	64.8	51.0	44.5	
Average low temperature (°F)	25.1	30.6	37.8	44.2	50.7	50.9	62.3	65.5	59.0	46.9	36.2	33.0	
Precipitation (inches)	1.0	1.4	1.2	1.3	1.0	0.7	0.5	2.0	1.8	0.2	0.5	1.1	12.7
Snowfall (inches)	5.5	1.2	0.7	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.7	4.0	12.3
Climate Data for Salt Lake City, Utah, 2015													
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year Total
Average high temperature (°F)	42.5	53.4	61.1	63.8	63.0	76.6	87.3	71.3	76.2	65.5	48.9	36.9	
Average low temperature (°F)	30.4	38.7	42.9	43.7	47.9	48.4	67.4	56.4	57.6	50.5	34.8	27.0	
Precipitation (inches)	0.9	0.4	0.5	2.1	4.2	0.4	1.5	0.9	2.1	0.8	0.3	1.2	15.3
Snowfall (inches)	0.5	0.1	3.0	5.1	0.0	0.0	0.0	0.0	0.0	0.0	0.4	14.8	23.9
Climate Data for Salt Lake City, Utah, 2016													
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year Total
Average high temperature (°F)	38.5	45.7	52.0	62.4	65.6	88.7	83.5	89.3	63.3	66.5	54.7	32.1	
Average low temperature (°F)	27.3	31.7	35.7	45.2	47.8	61.0	66.3	68.0	48.2	47.6	39.8	21.4	

**Table 5-1. Climate Data Summary for Salt Lake City: 2011 - 2016**

Precipitation (inches)	1.8	0.6	2.4	1.8	1.3	0.3	0.0	0.0	0.2	0.9	1.6	1.6	12.5
Snowfall (inches)	9.6	2.5	2.1	0.4	0.0	0.0	0.0	0.0	0.0	0.0	6.5	10.5	31.6

Source: U.S. Climate Data for Salt Lake City, Utah (USCD 2017).

Annual precipitation was above average in 2011 and below average from 2012 through 2016. The winter of 2011-2012 had lower than average snowfall and the spring of 2012 was drier than average. The winter of 2012-2013 had higher than average snowfall whereas the spring of 2013 was drier than average. The winters of 2013-2014 and 2014-2015 had lower than average snowfall. The winter of 2015-2016 average to low snowfall and the spring of 2016 was drier than average.

During field surveys, tree and shrub species were leafed out and many wildflowers were blooming, then going to seed later in the season. At field surveys conducted during middle to late summer and early fall (2012 and 2016), many wetland areas appeared dry and in some areas vegetation in both upland areas and seasonal wetlands was dried out. Anecdotally, conditions at seasonal wetland areas generally appeared drier during summer 2016 in comparison to the summer of 2012. However, based on observed annual vegetation growth and apart from some areas affected by other factors (such as residential development), these wetlands still appeared to be supported by sufficient seasonal hydrology to sustain hydrophytic communities. Despite dry field conditions at times, most of the herbaceous plant species, including grasses and forbs, were identifiable based on plant growth and flowers.

#### What is a forb?

A *forb* is an herbaceous flowering plant that is not a graminoid (grasses, sedges, and rushes).

Land uses are changing extensively in the survey area. Much of the survey area is farmland, land used for grazing, or open, fallow fields. Many residential developments are under construction, including numerous sites in the survey area near the Great Salt Lake shoreland areas.

### 5.1.1 General Hydrology

Many of the wetlands and other WOUS in the survey area are hydrologically connected to the Great Salt Lake. The Great Salt Lake, groundwater discharge areas, streams, canals, and flood irrigation influence the groundwater levels in the survey area. The survey area and adjacent land generally drains south and/or west toward the lake.

Some of the investigated areas are influenced by irrigation. The wetland delineation team did not make any jurisdictional distinction between areas that are likely supported primarily by irrigation water and areas that are likely supported primarily by other hydrology sources. Representatives with USACE have stated that, in order for it to make this determination, irrigation water would likely have to be turned off and the site investigated under non-irrigated conditions. UDOT does not have the authority to require landowners to stop irrigating their properties so the wetland delineation team did not distinguish between irrigation-supported hydrology and other types of hydrology when evaluating potential

wetlands. In instances where irrigation visibly influenced a site, the delineation team noted irrigation characteristics in the field surveys documentation. In some cases where sampled areas did not satisfy wetland criteria, the delineation team ascertained that irrigation water sustained some hydrophytic plants but did not provide sufficient periods of saturation or inundation to form hydric soils.

Based on field observations and the history of agricultural development in the survey area, apparently many of the investigated fields in the survey area have been drained. The current condition of most of these drainage systems is unknown.

In some cases, there was no apparent hydrology when delineation fieldwork was conducted during July, August, and September of both 2012 and 2016, but there was a dominance of hydrophytic plants, and the soils were mapped as hydric and/or displayed hydric soil indicators. Hydrology indicators were reviewed but, at some locations, indicators were insufficient to positively identify wetland hydrology at a sampling area. In accordance with delineation procedures, these locations were identified as naturally problematic for hydrology and the area was delineated as a wetland. The team assumed that seasonal hydrology, whether natural or irrigation-induced, is present during portions of the growing season.

### 5.1.2 General Soil Conditions

A variety of soil types exist in the survey area, some of which are listed as hydric in the Soil Survey of Utah. Determinations in the soil survey indicate only the potential for a particular soil type, based on its degree of water infiltration, to be considered as a wetland hydric soil if it is wetted for long enough during the growing season to sufficiently experience anaerobic conditions in the rooting zone of herbaceous plants (up to about 24 inches deep). Regardless of a soil's rating as hydric or not hydric in the soil survey, any particular soil typically must satisfy at least one of the appropriate indicators of hydric soils listed by NRCS (2016) to meet the hydric soil parameter and be considered a wetland.

A challenging soil condition experienced in parts of the survey area was alkaline soils. Soil alkalinity can sometimes affect certain redoximorphic features, making them either not visible or less apparent in the soil profile, potentially resulting in those soils not meeting the proper hydric soil indicators given the actual hydric conditions experienced in those soils. These situations are discussed as problematic hydric soils in the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0)* (USACE 2008b). In areas where wetland hydrology and halophytic (salt-loving), hydrophytic vegetation were indicated but soils failed to show hydric indicators, the area was delineated as a wetland, and the team assumed that hydric soils were present.

In other areas that were not comprised of halophytic vegetation communities (but sometimes included species with mixed salt tolerance), hydric indicators were repeatedly identified in wetlands areas with strongly hydrophytic vegetation but were not present in upslope areas that are apparently confounded by irrigation. Based on coordination with the USACE in 2012, soils in irrigated areas with non-halophytic communities that did not exhibit hydric indicators were not delineated as wetlands. At a few sites, hydric indicators were not

identified at sampled areas dominated by tall emergent marsh vegetation. Based on coordination with the USACE, these areas were delineated as emergent marsh wetlands.

## Soil Types

Soil map unit boundaries within the survey area are provided in Appendix F, NRCS Soil Map Series. Soil types included within the project site are described in a single report: *Custom Soil Resource Report for Davis-Weber Area, Utah. West Davis Corridor* (NRCS 2017). This report is included with this memorandum as Appendix G and contains detailed descriptions of soils within the WDC study area.

The following soil types for the WDC Project are described in Appendix G:

Ackmen loam, 3 to 6 percent slopes	Lakeshore fine sandy loam, 0 to 1 percent slopes
Airport silt loam, 0 to 2 percent slopes	Layton loamy fine sand, 0 to 3 percent slopes
Airport silty clay loam, 0 to 1 percent slopes	Logan silty clay loam, 0 to 3 percent slopes
Arave-Saltair complex, 0 to 1 percent slopes	Logan silty clay loam, shallow water table, 0 to 3 percent slopes
Chance loam, 0 to 3 percent slopes	Parleys loam, 0 to 4 percent slopes
Chance-Ironton complex, 0 to 3 percent slopes	Parleys loam, 1 to 3 percent slopes
Cobbly alluvial land	Parleys loam, 3 to 8 percent slopes
Cudahy silt loam, 0 to 1 percent slopes	Parleys loam, 6 to 10 percent slopes
Draper loam, 0 to 1 percent slopes	Pintailake-Eimarsh-Playas complex, 0 to 1 percent slopes
Draper loam, 1 to 3 percent slopes	Payson-Warm Springs complex, 0 to 3 percent slopes
Draper loam, drained, 0 to 1 percent slopes	Roshe Springs silt loam, 0 to 3 percent slopes
Draper loam, drained, 1 to 3 percent slopes	Saltair silty clay loam, 0 to 3 percent slopes
Draper gravelly loam, gravelly subsoil variant, 3 to 6 percent slopes	Sunset loam, drained, 0 to 1 percent slopes
Eimarsh-Playas-Pintailake complex, 0 to 1 percent slopes	Sunset loam, drained, 1 to 3 percent slopes
Ford loam, 0 to 1 percent slopes	Syracuse loamy fine sand, 0 to 2 percent slopes
Ford loam, shallow water table, 0 to 1 percent slopes	Saltair-Playas-Lasil complex, 0 to 1 percent slopes
Harrisville silt loam, 0 to 1 percent slopes	Syracuse loamy fine sand, moderately saline, sodic, 0 to 2 percent slopes
Harrisville-Leland complex, 0 to 1 percent slopes	Timpanogos loam, 0 to 1 percent slopes
Ironton silt loam, 0 to 1 percent slopes	Timpanogos loam, 1 to 3 percent slopes
Ironton silt loam, 1 to 3 percent slopes	Timpanogos loam, 3 to 6 percent slopes

Iron-ton silt loam, saline, sodic, 0 to 1 percent slopes	Warm Springs fine sandy loam, 0 to 1 percent slopes
Iron-ton-Draper complex, 0 to 3 percent slopes	Warm Springs fine sandy loam, 1 to 3 percent slopes
Kidman fine sandy loam, 0 to 1 percent slopes	Warm Springs fine sandy loam, saline, sodic, 0 to 1 percent slopes
Kidman fine sandy loam, 1 to 3 percent slopes	Warm Springs fine sandy loam, saline, sodic, 0 to 1 percent slopes, channeled
Kidman fine sandy loam, 3 to 6 percent slopes	Warm Springs fine sandy loam, shallow water table, 0 to 1 percent slopes
Kidman fine sandy loam, 10 to 20 percent slopes, eroded	Woods Cross silty clay loam, 0 to 3 percent slopes
Kilburn gravelly sandy loam, 3 to 6 percent slopes	Woods Cross silty clay loam, drained, 0 to 3 percent slopes

The soil map autogenerated in the Appendix G soil resource report is difficult to interpret, but Appendix F, NRCS Soil Map Series, provides soil map unit boundaries within the survey area.

Twelve hydric soils for Utah (NRCS 2016a) are included in the soil resource report:

- Arave-Saltair complex
- Harrisville-Leland complex
- Iron-ton-Draper complex
- Pintailake-Eimarsh-Playas complex
- Airport family
- Draper family
- Cudahy family
- Ford Loam family
- Lakeshore family
- Logan family
- Warm Springs family
- Syracuse family

These 12 hydric soils all belong to Hydrologic Soil Group's C or D, with each soil type generally found in a lake plains or lake terrace setting. Two main hydric soil indicators, depleted matrix and depleted below dark surface occur in nearly all of these hydric soils. The presence of some relatively unique indicator include sandy redox, hydrogen sulfide, and redox dark surface. The salinity profile for the majority of these soils is moderately saline to strong saline. Overall the slope is typically 0 to 3 percent with depth to restrictive features at more than 80 inches. Typical profile composition consists of repetitions of silt loam layers and silty clay loam layers.

### 5.1.3 General Plant Community Types

In general, the survey area contains wetland, riparian, and upland plant communities. Appendix D, List of Plant Species Observed, lists the plant species that were observed in the survey area including the scientific name, common name, family name, and Arid West Region Wetland Indicator status (Lichvar 2016).

#### Wetland Communities

Based on the *Classification of Wetlands and Deepwater Habitats of the United States* (Cowardin et al. 1979), two wetland habitat types are present in the survey area: palustrine emergent marsh and palustrine unconsolidated bottom. Areas identified as “playa” (described below) are technically a distinct aquatic resource from wetlands, but are included within wetland sections of this document. No forested/scrub-shrub wetlands communities were delineated because corresponding species were not found rooted within wetland communities greater than five percent by strata. The delineation team categorized wetland communities in the survey area by three general vegetation cover classes: emergent marsh, playa, and wet meadow.

**Emergent Marsh.** Emergent marshes in the survey area include wetlands that are inundated seasonally, semi-permanently, and permanently to yield plant communities that can tolerate prolonged periods of standing water. Common species in these communities include common reed (*Phragmites australis*), hardstem bulrush (*Schoenoplectus acutus*), broadleaf cattail (*Typha latifolia*), sedges (*Carex* spp.), reed canarygrass (*Phalaris arundinacea*), and three-square (*Schoenoplectus pungens*).

**Playa.** The survey area include some relatively small depressional areas that are seasonally inundated and are highly saline/alkaline. These features delineated as playas exhibit an OHWM and their overall absolute vegetation cover is less than 5%. Playas in the survey area generally include a narrow fringe higher cover vegetation along the playa edges and little to no vegetation further inside the playa. Common species along playa fringes include saltgrass (*Distichlis spicata*), saltmarsh bird’s-beak (*Cordylanthus maritimus*), Nuttall’s alkaligrass (*Puccinellia nuttalliana*), pursh seepweed (*Suaeda calceoliformis*), red swampfire (*Salicornia rubra*), iodine bush (*Allenrolfea occidentalis*), and little barley (*Hordeum pusillum*). Red swampfire, pursh seepweed, and iodine bush occur across interior portions of some playas.

**Wet Meadow.** Wet meadows include wetlands that are inundated temporarily or are only seasonally or intermittently saturated. These hydrologic regimes support communities that are hydrophytic but cannot withstand prolonged inundation. Most wet meadows in the survey area experience seasonal or intermittent hydrology such that vegetation tends to dry out during late summer months.

Due to variability in local hydrology, salinity/alkalinity, and land uses such as grazing, wet meadow communities in the survey area are relatively diverse. Some depressional wetland meadows are highly saline with relatively low vegetation cover dominated by salt-tolerant species such as saltgrass, saltmarsh bird’s-beak, Nuttall’s alkaligrass, and pursh seepweed. Other wet meadows that include freshwater inputs are comprised of more diverse and dense



vegetation including sedges, rushes (*Juncus* spp.), common spike-rush (*Eleocharis palustris*), curly dock (*Rumex crispus*), foxtail barley (*Hordeum jubatum*), strawberry clover (*Trifolium fragiferum*), and three-square. Several large wet meadows in the survey area include transitional areas along salinity gradients that include a mix of vegetation. Some wet meadows have relatively high cover in invasive species and weeds including broadleaved pepperweed (*Lepidium latifolium*), reed canarygrass, two-seed saltbush (*Atriplex micrantha*), and fuller's teasel (*Dipsacus fullonum*). A few wet meadows also contain some shrubs and trees; however, they are generally sparse and were observed at under 5% in aerial cover. Most of these woody species, such as Russian olive (*Elaeagnus angustifolia*) and salt cedar (*Tamarix ramosissima*), are not native.

## Riparian Communities

Riparian communities in the survey area are primarily located adjacent to streams and some canals and ditches. None of the riparian communities in the survey area meet all three of the CWA criteria for wetlands (other than delineated wetlands in riparian areas that were dominated by herbaceous vegetation) because they are located along the narrow, upland banks of these creeks and other drainages. Common plant species in riparian communities include Fremont cottonwood (*Populus fremontii*), Russian olive, salt cedar, willows (*Salix* spp.), tall wheatgrass (*Thinopyrum ponticum*), and cheatgrass (*Bromus tectorum*).

## Upland Communities

Much of the survey area that is not developed is currently being used as pastureland. Common plant species in these areas include meadow fescue (*Festuca pratensis*), alfalfa (*Medicago sativa*), tall wheatgrass, cheatgrass, Japanese brome (*Bromus japonicus*), clasping pepperweed (*Lepidium perfoliatum*), prickly lettuce (*Lactuca serriola*), common dandelion (*Taraxacum officinale*), white clover (*Trifolium repens*), red clover (*Trifolium pratense*), two-seed saltbush, Canada thistle (*Cirsium arvense*), field bindweed (*Convolvulus arvensis*), whitetop (*Cardaria dabra*), yellow sweet clover (*Melilotus officinalis*), common teasel (*Dipsacus fullonum*), and curly gumweed (*Grindelia squarrosa*).

A few areas were identified as upland salt scrub and are dominated by greasewood (*Sarcobatus vermiculatus*) and iodine bush (*Sarcobatus vermiculatus*). Upland areas in the survey area also include a variety of croplands.

## 5.2 National Wetlands Inventory Wetland Mapping

The NWI maps that cover the survey area are included in Appendix E, NWI Map Series. NWI maps provide data on wetlands and deepwater habitats such as lakes and streams, categorized by the *Classification of Wetlands and Deepwater Habitats of the United States* (Cowardin Classification System; Cowardin et al. 1979). NWI data are primarily based on high altitude imagery interpretation and do not represent regulatory boundaries.



## 6.0 Results

As described in Section 3.3, the entire 4,416-acre survey area was evaluated for the presence of wetlands and other aquatic resources. The sections that follow describe the results of the delineation.

The maps in Appendix A, Aquatic Resource Delineation Map Series, depict the extent of aquatic resources within the survey area and provide the locations of delineation sampling points. Field data recorded on datasheets are provided in Appendix B, Wetland Delineation Forms. Representative photographs were also taken during site surveys to document existing site conditions; these are provided in Appendix C, Onsite Representative Photographs. A list of observed plant species was compiled and is provided in Appendix D, List of Plant Species Observed.

Within the survey area, a total of 567 sampling points were recorded on field data forms. Appendix H, Field Data Points Summary, lists the field data sampling points and provides the corresponding map sheet number for locating each data point in Appendix A and Appendix B. The datasheets, representative photographs, and data point summary are each roughly ordered from south to north by sampling point ID as they appear on the maps in Appendix A.

### 6.1 Wetlands

One hundred ninety-six wetlands totaling 732.65 acres within the survey area were delineated and mapped as emergent marsh, playa, and wet meadow wetlands. Map sheets 1 through 37 show the boundaries of areas delineated wetlands within the survey area and associated data-point locations (see Appendix A, Aquatic Resource Delineation Map Series). It should be noted that many of these wetlands continue well beyond the survey area boundaries and that mapped wetland areas shown outside the survey area are included only to help provide context. Data forms used to help delineate the wetland boundaries are provided in Appendix B, Site Wetland Delineation Forms.

Wetland characteristics are summarized below by three regions that make up the survey area: the South Region (Map Sheets 1–14 in Appendix A), the Central Region (Map Sheets 15–27), and the North Region (Map Sheets 27–37). Table 6-1, beginning on page 25, presents general information about each wetland including size, classification, characteristics descriptions, and connections to other aquatic resources. The West Davis Corridor Wetlands Functional Assessment Report, provides the results of the functional assessment conducted for the delineated wetlands.

#### South Region

Eighty-nine wetlands totaling 274.09 acres were delineated within the South Region (see Map Sheets 1–14). Much of this region of the survey area is located near developing areas within agricultural areas adjacent to or within the wetlands complex associated with the Great Salt

Lake. Portions of the survey area in this region are located within the USACE floodplain for the Great Salt Lake (4,217 AMSL) and a few areas are located below 4,212 AMSL. The south end of the survey area intersects with I-15 and Legacy Parkway in a primarily urbanized environment.

Wetlands within or immediately adjacent the Great Salt Lake complex wetlands are known to provide important habitat for wildlife, including numerous species of migratory birds. These wetlands also provide water quality functions and flood attenuation. Common reed is a problematic invasive species in several of these wetlands. Wetlands are hydrologically supported by shallow groundwater and surface drainage. Emergent marshes are mainly semi-permanently to permanently flooded or saturated, while wet meadows are seasonally or intermittently flooded/saturated. The upslope extent of these wetlands appears to be influenced in some instances by irrigation tailwater and stormwater drainage. The wetlands in urbanized areas are generally disturbed, highly influenced by stormwater drainage, and often impounded by linear features such as roads and rail lines.

### Central Region

Sixty-eight wetlands totaling 308.84 acres were delineated within the Central Region (see Map Sheets 15–27). In this region, the survey area is generally within agricultural areas and adjacent to or within the wetlands complex associated with the Great Salt Lake. Portions of the survey area in this region are located within the lake’s USACE floodplain. Agricultural areas in this region include large croplands and pastures.

The vast majority of wetlands delineated in this region are part of a relatively continuous complex of wetlands that extend to the Great Salt Lake and so provide important habitat for wildlife and also provide water quality functions and flood attenuation. A few of these wetlands are somewhat degraded by livestock grazing, but dominance by common reed is the biggest detracting factor to habitat quality for several wetlands. Wetlands are hydrologically supported by shallow groundwater and surface drainage. Emergent marshes are mainly semi-permanently to permanently flooded or saturated, while wet meadows are seasonally or intermittently flooded/saturated. The upslope extent of these wetlands appears to be influenced in some instances by irrigation tailwater and stormwater drainage.

Other wetlands are located upslope of the Great Salt Lake wetlands complex. These wetlands are in pasturelands, fallow fields, and drainage areas. These wetlands appear to be influenced by irrigation and stormwater drainage. They provide variable wildlife habitat and also limited hydrology and water quality functions along drainages.

### North Region

Thirty-nine wetlands totaling 149.72 acres were delineated within the North Region (see Map Sheets 28–37). Wetlands in this region are mainly located near Bluff Road in Syracuse and Layton and are inland from the complex of wetlands that are associated with the Great Salt Lake. Areas just below the toe of the geographic bluff formation along Bluff Road appears to include natural discharge areas where several wetlands appear to be hydrologically supported by shallow groundwater.

1 Most of the wetlands in the North Region appear to be at least somewhat affected by human  
2 activities. Some wetlands are present in areas that have been excavated. Other wetlands  
3 appear to be influenced by irrigation and current or recent livestock grazing. Common reed is  
4 a dominant invasive species within the wetlands that are present in areas that have been  
5 excavated. The condition of wetlands in pasturelands is fairly variable and mainly appears to  
6 be dependent on the amount of grazing pressure.

7 Wetlands in this region provide relatively marginal habitat for wildlife, including migratory  
8 birds that occur in semi-urban areas. Some wetlands also appear to perform water quality  
9 functions that are primarily associated with irrigation and stormwater drainage that eventually  
10 flows into the Great Salt Lake.

**Table 6-1. Delineated Wetlands**

Wetland ID <sup>1</sup>	Cover Class <sup>2</sup>	Cowardin Code <sup>3</sup>	Size (acres) <sup>4</sup>	Latitude <sup>5</sup>	Longitude <sup>5</sup>	Map Sheet <sup>6</sup>	Description
<b>South Region</b>							
26-CW-51	0.14	PEM	0.14	40.9483	-111.89	1	Mitigation wetland along frontage road with roadside drainage.
26-CW-54	0.29	PEM	0.29	40.95393	-111.89	1	Mitigation wetland along frontage road with roadside drainage.
25-IW-42	EM	PEM	0.77	40.95900008	-111.8927626	1, 3	Basin depressional wet meadow located in center median swale for Legacy Parkway. No apparent outlet.
25-W-19	WM	PEM	1.92	40.95790703	-111.9013516	1, 3	Saline wet meadow dominated by saltgrass and includes spikerush, foxtail barley, and threesquare. Abuts other wetlands beyond the survey area and drainages that drain into the Great Salt Lake wetland complex.
25-W-24	EM	PEM	0.97	40.95658548	-111.8944683	1	Wetlands just west of Legacy Parkway adjacent to Davis Creek (25-R-37) and other waterways (19-FD-30, 19-FD-33, and 19-FD-32). There is low cover of Russian olive in portions of these wetlands, but they are mainly open emergent marsh and wet meadow. Emergent marsh species include cattail and common reed. Wet meadow species include Artic rush, saltgrass, teasel, two-seed, and threesquare. Wetlands continue to the west beyond the survey area boundary and connect to the Great Salt Lake Wetland complex.
25-W-24-B	WM	PEM	0.98	40.95659	-111.894	1	
25-W-25	WM	PEM	1.44	40.95792878	-111.8946832	1	
26-W-60	WM	PEM	2.38	40.95517063	-111.8942382	1	
25-W-13	WM	PEM	8.16	40.96079911	-111.9077679	2, 4	
25-W-56A	WM	PEM	2.78	40.96213629	-111.9062231	3, 4	
25-W-17	WM	PEM	2.19	40.96444094	-111.9071349	4	
25-W-72	WM	PEM	2.56	40.96136412	-111.9105355	4	
25-W-38a	EM	PEM	0.92	40.95850133	-111.8921422	1	Seasonally flooded wetlands just east of Legacy Parkway dominated by common three-square and reed canarygrass. Abut Davis Creek (25-R-37).
25-W-38b	EM	PEM	0.83	40.95738102	-111.8921848	1	
25-W-58	WM	PEM	0.49	40.95809444	-111.8996507	1	Somewhat saline wetland east of and adjacent to wetland 25-W-19 (separated by road). Vegetation includes spiked bent, teasel, prickly lettuce, and tall pepperweed.

**Table 6-1. Delineated Wetlands**

Wetland ID <sup>1</sup>	Cover Class <sup>2</sup>	Cowardin Code <sup>3</sup>	Size (acres) <sup>4</sup>	Latitude <sup>5</sup>	Longitude <sup>5</sup>	Map Sheet <sup>6</sup>	Description
26-IW-32	WM	PEM	0.26	40.94865058	-111.89219	1	Depressional wetlands located between Legacy Parkway and rail lines. These wetlands are connected to each other. Small dry vegetated channels that lack a continuous defined bed and bank connect the wetlands to a flowing ditch (26-FD-78).
26-IW-33	WM	PEM	0.21	40.94957915	-111.892288	1	
26-IW-52	WM	PEM	0.58	40.95018229	-111.8900312	1	Disturbed wetland located east of I-15 with some fill material around some sides. Connects to ditch, then immediately to culvert that does not appear to have relatively permanent flows.
26-W-18	EM	PEM	2.88	40.95589539	-111.8901137	1	Wetland just east of I-15 in wet part of horse pasture that transitions to tall emergent marsh. Abuts drainage channels that appear to eventually drain to the Great Salt Lake.
26-W-34	EM	PEM	0.22	40.95288726	-111.8923333	1	Wetland just east of Legacy Parkway in excavated basins dominated by spikerush and cattail. Abuts drainage (19-FD-32) that appears to drain to the Great Salt Lake.
MPAC09292016-1	P	PUB	2.09	40.96014833	-111.9083933	2, 3, 4	Part of drainage wetland complex that pertains to Great Salt Lake wetlands complex and drains into Farmington Bay. Abuts wet meadow 25-W-72. Plant species include pickleweed, saltgrass, and seepweed.
MPAC09292016-2	EM	PEM	24.42	40.96002652	-111.9093065	2, 4	Part of drainage wetland complex that is down gradient and abutting emergent marsh 25-W-71. This portion of complex does not appear disturbed but emergent marsh is dominated by thick cattail cover. Pertains to Great Salt Lake wetlands complex and drains into Farmington Bay.
25-IW-39	EM	PEM	0.78	40.96230541	-111.89207	3	Relatively large wetland located between Legacy Parkway and rail lines that likely collects additional water seasonally as a result of these constructed transportation features. A vegetated non-wetland swale provides a high-water outlet that connects to a flowing drainage channel (25-D-80).
25-W-35	EM	PEM	0.50	40.9641156	-111.8921733	3	Wetland just east of Legacy Parkway comprised of mixed vegetation: creeping wild rye, reed canarygrass, saltgrass, tall pepperweed, and teasel. Abuts Steed Creek (25-R-36) which drains into Davis Creek and then into Farmington Bay of the Great Salt Lake.
24-W-46	WM	PEM	0.19	40.96638756	-111.9202959	4	Depressional wetlands in an irrigated field that appears heavily grazed. Overflowing water would drain through a

**Table 6-1. Delineated Wetlands**

Wetland ID <sup>1</sup>	Cover Class <sup>2</sup>	Cowardin Code <sup>3</sup>	Size (acres) <sup>4</sup>	Latitude <sup>5</sup>	Longitude <sup>5</sup>	Map Sheet <sup>6</sup>	Description
24-W-47	WM	PEM	0.91	40.96616743	-111.9195945	4	vegetated non-wetland swale, then to a drainage ditch that empties into wetlands/waters at Farmington Bay Waterfowl Management Area.
25-W-48	WM	PEM	0.06	40.96538554	-111.9187191	4	Wet meadow bisected by Glover's Lane from Farmington Bay wetlands to the south that drain into Farmington Creek. Connected to wetland via ditch culvert.
25-W-49	WM	PEM	0.70	40.96552544	-111.9157049	4	Wet meadow with relatively diverse vegetation on the north side of Glover's Lane. May be considered adjacent to wetlands to the south across the road.
25-W-50	WM	PEM	0.26	40.96515243	-111.9158949	4	Wet meadow dominated by Artic rush on the south side of Glover's Lane near the entrance to Farmington Bay Waterfowl Management Area. May be considered adjacent to wetlands across entrance road the join wetland complex that drains into Farmington Creek/Farmington Bay.
25-W-56B	P	PUB	1.32	40.96198185	-111.9063525	4	Part of mosaic of wetlands in pasture near Farmington Bay Waterfowl Management Area. Species along playa fringe include saltmarsh bird's beak, pickleweed, and Nuttall's alkaligrass. Abuts drainage 14-FD-60 that drains into wetlands then into Farmington Bay.
25-W-57	EM	PEM	0.10	40.96389465	-111.9081635	4	Part of mosaic of wetlands in pasture near Farmington Bay Waterfowl Management Area with portions somewhat disturbed by grazing. Plant species include common reed, poison hemlock, teasel, reed canarygrass, tall pepperweed, and threesquare. Seems to receive substantial hydrology from WOUS drainage 14-FD-60 that drains into Farmington Bay and an artesian well located near the northeast corner of wetland 25-W-17.
25-W-71	EM	PEM	3.71	40.96210815	-111.9084433	4	
25-W-59	WM	PEM	1.02	40.9666094	-111.9060741	4	Wetland in field adjacent to residential area is dominated by arctic rush and clustered field sedge. Abuts ditch/drainage 25-FD-60 that drains into Farmington Bay.
25-W-60	WM	PEM	1.74	40.9628305	-111.9096713	4	Part of mosaic of wetlands in pasture near Farmington Bay Waterfowl Management Area with portions somewhat disturbed by grazing. Wet meadow species include saltgrass, two-seed saltbush, curly dock, and Nuttall's alkaligrass. Seems to receive substantial hydrology from drainage 14-FD-60 that drains into Farmington Bay and an artesian well located near the northeast corner of wetland 25-W-17.

**Table 6-1. Delineated Wetlands**

Wetland ID <sup>1</sup>	Cover Class <sup>2</sup>	Cowardin Code <sup>3</sup>	Size (acres) <sup>4</sup>	Latitude <sup>5</sup>	Longitude <sup>5</sup>	Map Sheet <sup>6</sup>	Description
MP09282016-2	WM	PEM	4.26	40.96260134	-111.914975	4	Wet meadow wetland that abuts open water pond (25-OW-92) at Farmington Bay Waterfowl Management Area. All but the fringe of this wetland abutting the pond dries out seasonally.
MP09282016-3	EM	PEM	0.26	40.96413064	-111.9176872	4	Emergent marsh wetland adjacent to Farmington Creek with relatively diverse vegetation.
MP09282016-4	WM	PEM	0.53	40.96495329	-111.9169709	4	Somewhat disturbed seasonally dry wet meadow with relatively low vegetation cover on the south side of Glover's Lane near the entrance to Farmington Bay Waterfowl Management Area. May be considered adjacent to wetlands across entrance road the join wetland complex that drains into Farmington Creek/Farmington Bay.
MP09282016-5	EM	PEM	0.56	40.96251832	-111.9161803	4	Emergent marsh wetland that abuts open water pond (25-OW-92) at Farmington Bay Waterfowl Management Area.
MP09272016-2	EM	PEM	0.14	40.96994768	-111.9386743	5, 6	Emergent marsh dominated by cattail and common reed adjacent to Great Salt Lake wetlands complex.
MP09282016-1	WM	PEM	1.68	40.96583083	-111.9313754	5	Disturbed wetlands in low corner of properties against roads/berms and adjacent to large open water ponds that abut the Great Salt Lake wetlands complex.
22-W-70	EM	PEM	1.67	40.97811379	-111.9370778	6	Wetland dominated by obligate emergent vegetation (bulrush, cattail, Artic rush) in a broad swale-like drainage abutting open water channel (22-FD-70) and appears to interface with periodic back-flooding from an open-water pond (22-OW-70) which abuts wetlands adjoining the Great Salt Lake wetland complex.
AC09272016-1	WM	PEM	0.66	40.98068975	-111.9404337	6, 7	Depressional saline wet meadows west of open water pond 122-OW-70 that pertain to Great Salt Lake wetlands complex.
AC09272016-2	WM	PEM	0.66	40.98026882	-111.9410205	6, 7	
AC09272016-3	WM	PEM	0.24	40.97539366	-111.9395242	6	Small saline wet meadows just south of emergent marsh and open water pond 22-OW-70.
AC09272016-4	EM	PEM	0.31	40.97593977	-111.9395649	6	Small emergent marsh wetland on the south end of open water pond 22-OW-70.
AC10122016-1	EM	PEM	1.68	40.97849414	-111.940108	6, 7	Emergent marsh that abuts west side of open water pond 122-OW-70.



**Table 6-1. Delineated Wetlands**

Wetland ID <sup>1</sup>	Cover Class <sup>2</sup>	Cowardin Code <sup>3</sup>	Size (acres) <sup>4</sup>	Latitude <sup>5</sup>	Longitude <sup>5</sup>	Map Sheet <sup>6</sup>	Description
MP09272016-1	EM	PEM	0.87	40.97101214	-111.935905	6	Wetland with emergent vegetation that appears to be supported by a well. Hydrology dissipates into upland grasslands.
20-W-02	EM	PEM	12.46	40.99277417	-111.9435292	7, 8, 9	Relatively large emergent marsh includes some native species (bulrush and threesquare) but is mainly dominated by common reed. Baer Creek and Haight Creek each flow into this wetland. Adjacent to the Great Salt Lake wetlands complex. Separated by a dike road from wetlands to the west, but culverts provide hydrologic connections.
22-W-10	EM	PEM	8.50	40.98295936	-111.9393107	7	Emergent marsh wetland that is part of the Great Salt Lake wetland complex. Plant species include common reed, bulrush, threesquare, cattail, and Torrey's rush.
22-W-27	WM	PEM	5.32	40.99071458	-111.9403021	7, 8	Large wet meadow that abut emergent marshes (20-W-02 and 22-W-27b) that are connected to the Great Salt Lake wetlands complex. Exhibits relatively diverse vegetation with large patches dominated by saltgrass, Nuttall's alkaligrass, spikerush, and foxtail barley. Southern portion receives stormwater drainage.
22-W-43	EM	PEM	7.06	40.98620419	-111.937018	7	Wetlands dominated by common reed, cattail, and bulrush that is considered part of the Great Salt Lake wetland complex. Separated by dike road from wetlands to the west but hydrologically connected through drainage culverts. TNC indicated this area was previously open water until drainage was modified several years ago. Includes drainage wetland complex with abutting wet meadows.
22-W-27b	EM	PEM	5.78	40.98929599	-111.9394313	7	
22-W-55d	EM	PEM	0.35	40.9869149	-111.934792	7	
22-W-55e	EM	PEM	0.42	40.98704845	-111.9331899	7	
22-W-44	WM	PEM	20.58	40.98492666	-111.9391907	7	Saline meadow wetland that appears heavily grazed is dominated by Nuttall's alkaligrass and saltgrass. Also contains tall pepperweed. Pertains to the Great Salt Lake wetland complex as it abuts emergent marshes to the west.
22-W-55b	WM	PEM	0.80	40.98683391	-111.933293	7	Part of wetland drainage complex that abuts emergent marsh 22-W-43 and is connected to the Great Salt Lake wetlands complex. Relatively diverse vegetation including saltgrass, clustered field sedge, threesquare, foxtail barley, tall pepperweed, and strawberry clover.
22-W-42	WM	PEM	2.36	40.98582949	-111.936643	7	
22-W-55c	WM	PEM	4.40	40.98679898	-111.935003	7	



**Table 6-1. Delineated Wetlands**

Wetland ID <sup>1</sup>	Cover Class <sup>2</sup>	Cowardin Code <sup>3</sup>	Size (acres) <sup>4</sup>	Latitude <sup>5</sup>	Longitude <sup>5</sup>	Map Sheet <sup>6</sup>	Description
20-W-05	WM	PEM	0.08	40.99631528	-111.9399144	8	Wet meadow wetlands in low corner of pasture fields. Vegetation includes Torrey's rush, foxtail barley, strawberry clover, spikerush, and meadow fescue.
20-W-70	WM	PEM	0.22	40.99625383	-111.9392661	8	
20-W-03	EM	PEM	0.27	40.99639775	-111.9470935	9	Wetland is a narrow swale-like feature that appears to be a remnant of excavation activity to create a berm to the east for an agricultural field. No obvious surface connection to nearby wetlands to the west, but area is nearly flat in between, and water from wetland 20-W-02 likely back-floods into this wetland at times. Adjacent to 20-W-02 which connects hydrologically to the Great Salt Lake wetlands complex.
20-W-24	EM	PEM	0.26	40.99872924	-111.9511946	9	Wetland pertains to the Great Salt Lake wetlands complex. Dominant species include bulrush and threesquare. Likely receives some inputs from the nearby sewer treatment plant.
20-W-25	WM	PEM	0.61	40.99559062	-111.9457982	9	Constructed basin delineated as open-water near berm (20-OW-04); remainder of basin delineated as wetland (20-W-25). Basin appears to be constructed in a wetland area. Located near mink farm; likely constructed for water quality functions. No outlet through berm, but adjacent to wetlands to the west that are connected to the Great Salt Lake.
18-W-67	EM	PEM	1.29	41.01087399	-111.9641506	10, 11	Wide drainage channel that is completely filled in with wetland vegetation (dominated by obligate species). Drains to Great Salt Lake wetland complex.
MPAC09262016-3	WM	PEM	0.30	41.00697423	-111.9608376	10	Saline wet meadow fringe that abuts emergent marsh and connected to Great Salt Lake wetlands complex. Situated below agricultural fields. Dominant vegetation includes saltgrass and seepweed.
MPAC09262016-4	EM	PEM	3.37	41.00807234	-111.9626558	10, 11	Extensive emergent marsh connected to Great Salt Lake wetlands complex, situated below agricultural fields along portions of the western boundary of the survey area. Dominated by cattail, common reed, and hardstem bulrush.
18-IW-01	WM	PEM	0.19	41.01099009	-111.9657167	11	Small depressional wetlands that collect irrigation overflow water from an irrigation ditch/hay field immediately upslope of the wetlands. Vegetation includes Nuttall's alkaligrass and wheatgrass. Situated near 4,212 AMSL and considered adjacent the Great Salt Lake wetlands complex.
18-IW-93	WM	PEM	0.61	41.00808166	-111.962291	10	

**Table 6-1. Delineated Wetlands**

Wetland ID <sup>1</sup>	Cover Class <sup>2</sup>	Cowardin Code <sup>3</sup>	Size (acres) <sup>4</sup>	Latitude <sup>5</sup>	Longitude <sup>5</sup>	Map Sheet <sup>6</sup>	Description
18-W-62	EM	PEM	6.19	41.01252366	-111.9693526	11, 12	Wetland dominated by vigorous obligate vegetation (cattail, threesquare, spikerush) at the edge the interface of pasture fields and the Great Salt Lake wetland complex.
MPAC09212016-4	EM	PEM	47.68	41.01433202	-111.9753155	11, 12	Large wet meadow fringe wetlands with mixed species below upland fields and abutting emergent marshes pertaining to the Great Salt Lake wetlands complex. These wetlands also abut Holmes Creek.
MPAC09222016-2	WM	PEM	10.10	41.0150857	-111.9723771	11, 12	
MPAC09222016-4	WM	PEM	10.13	41.01302353	-111.9720487	11, 12	
MPAC09212016-5	WM	PEM	2.52	41.01702894	-111.9757998	12	
MPAC09222016-1	WM	PEM	6.24	41.01608455	-111.974695	12	
MPAC09222016-3	P	PUB	1.25	41.01187422	-111.9683945	11	Saline playa depression with little vegetation including pickleweed, seepweed, and saltgrass. Abuts emergent marsh 18-W-62 that adjoins the Great Salt Lake wetlands complex.
MPAC09262016-1	WM	PEM	1.60	41.0105608	-111.9662893	11	Saline wet meadow that abuts emergent marsh pertaining to the Great Salt Lake wetlands complex.
MPAC09262016-2	WM	PEM	0.62	41.01281806	-111.9674712	11	Relatively "freshwater" depressional wet meadow that includes a few tall emergent species along with saltgrass, foxtail barley, and Artic rush. Drains to waterway 18-FD-93 which drains to the Great Salt Lake wetlands complex.
17-IW-19	WM	PEM	1.30	41.02172726	-111.9737654	12	Depressional wetland in an irrigated field lacks a defined outlet. An adjacent irrigation ditch that appears to lack relatively permanent flows is located to the southeast of the wetland. The ditch includes an upland berm/spoils that prevents any surface water from the wetland from draining into the ditch. Located between 4,220 and 4,230 AMSL.
17-IW-20	WM	PEM	0.04	41.02069619	-111.9729231	12	Small depressional wetland in heavily grazed, irrigated field. Field drains into a small ditch and culvert that crosses road and likely connects to other drainage infrastructure, but this drainage ditch appears to lack relatively permanent flows. Located between 4,220 and 4,230 AMSL.

**Table 6-1. Delineated Wetlands**

Wetland ID <sup>1</sup>	Cover Class <sup>2</sup>	Cowardin Code <sup>3</sup>	Size (acres) <sup>4</sup>	Latitude <sup>5</sup>	Longitude <sup>5</sup>	Map Sheet <sup>6</sup>	Description
17-W-21	EM	PEM	7.02	41.01896309	-111.9744461	12	Wetland in large pasture field contains a mix of vegetation but is dominated by obligates. Somewhat affected by grazing and dumping. Wetland continues southwest beyond survey area to connect with the Great Salt Lake wetland complex.
18-W-92	WM	PEM	0.51	41.01562571	-111.9673652	12	Wetland in weedy, disturbed field that abuts ditch (18-FD-10) which flows through a series of relatively permanently flowing ditches to the Great Salt Lake. Hydrology might be reduced as a result of ditch maintenance.
MPAC09212016-1	WM	PEM	0.47	41.02326853	-111.9770385	12	Relatively narrow wet meadow in field that is flood irrigated by TNC to benefit wildlife. Adjacent to wetlands to the west that are connected to the Great Salt Lake wetlands complex.
MPAC09212016-2	WM	PEM	5.24	41.02118108	-111.9785382	12	Wet meadows in field that is flood irrigated by TNC to benefit wildlife. Vegetation includes Artic rush, clustered field sedge, saltgrass, spikerush, and seepweed. Adjacent to wetlands to the west that are connected to the Great Salt Lake wetlands complex.
MPAC09212016-3	WM	PEM	13.66	41.018698	-111.9785783	12	Wet meadows in field that is flood irrigated by TNC to benefit wildlife. Vegetation includes Artic rush, clustered field sedge, saltgrass, spikerush, and seepweed. Adjacent to wetlands to the west that are connected to the Great Salt Lake wetlands complex.
16-IW-15	WM	PEM	0.17	41.03575275	-111.9967817	14, 15	Depressional wet meadow in pasture appears to receive hydrology from an abutting irrigation ditch. Channel is part of a system of ditches that eventually drain into the Great Salt Lake wetlands complex, but this ditch does not continuously exhibit a defined bed and bank and appears to lack relatively permanent flows. Located between 4,220 and 4,230 AMSL.
16-W-14A	EM	PEM	0.42	41.03094007	-111.992669	14	Wetland near farmstead with standing water mainly dominated by cattail. Wetland is adjacent to drainage channel (09-FD-30) that drains into Great Salt Lake wetland complex.
16-W-14B	WM	PEM	0.10	41.03119327	-111.9931767	14	Wet meadow abutting emergent marsh 16-W-14A that is adjacent to drainage channel (09-FD-30).
17-W-18	EM	PEM	0.06	41.0301402	-111.9903676	14	Wetland in pasture area dominated by saltgrass and contains some obligate vegetation that appears stressed. Wetland abuts ditch/drainage channel (09-FD-30). Ditch maintenance might have reduced hydrology for this wetland.

**Table 6-1. Delineated Wetlands**

Wetland ID <sup>1</sup>	Cover Class <sup>2</sup>	Cowardin Code <sup>3</sup>	Size (acres) <sup>4</sup>	Latitude <sup>5</sup>	Longitude <sup>5</sup>	Map Sheet <sup>6</sup>	Description
17-W-99	WM	PEM	0.07	41.03053287	-111.9901759	14	Relatively small wetland in pasture area dominated by saltgrass and reed canarygrass appears somewhat water-stressed. Also contains some weeds, garbage, and grazing impacts. Wetland abuts ditch/drainage channel (09-FD-30) that drains to Great Salt Lake. Ditch maintenance might have reduced hydrology for this wetland.
<b>South Region Total</b>			<b>274.09</b>				

**Table 6-1. Delineated Wetlands**

Wetland ID <sup>1</sup>	Cover Class <sup>2</sup>	Cowardin Code <sup>3</sup>	Size (acres) <sup>4</sup>	Latitude <sup>5</sup>	Longitude <sup>5</sup>	Map Sheet <sup>6</sup>	Description
<b>Central Region</b>							
15-W-13	WM	PEM	5.29	41.04336592	-112.0049984	15, 16	Gently sloping wetland in pasture area with vigorous and somewhat diverse vegetation; arctic rush and clustered field sedge are the main dominants. Wetland directly abuts the Great Salt Lake wetland complex.
16-IW-16	WM	PEM	0.20	41.03709954	-111.9981988	15	Small depressional wetlands in pasture. Abutting irrigation ditch does not continuously exhibit a defined bed and bank. Located near 4,230 AMSL.
16-IW-17	WM	PEM	0.05	41.03618431	-111.9973228	15	
15-W-12	WM	PEM	3.45	41.04350745	-112.0069939	16	Wetland in pasture area with a mix of dominant species: arctic rush, western wheatgrass, creeping wild rye, Nuttall's alkaligrass, saltgrass, and common three-square. Directly abuts wetlands to the south that are dominated by emergent vegetation and are part of the Great Salt Lake wetland complex.
15-W-75	WM	PEM	4.13	41.04674302	-112.0129398	16, 17	Relatively large wetland with cattle grazing observed, but does not appear overgrazed. This wetland is directly connected to the Great Salt Lake wetland complex and is dominated by lush arctic rush, saltgrass, and clustered field sedge and also contain pepperweed. Hydrology appears to be an interface of shallow groundwater and irrigation tail water. Area immediately north of the wetland boundary gradually rises where sampling points did not meet any indicators for hydric soils.
15-W-75-2	WM	PEM	5.79	41.04503728	-112.0095445	16	
15-W-76	EM	PEM	6.80	41.04626472	-112.0124043	16, 17	Wetland observed with standing water is dominated by cattail and connected to Great Salt Lake wetlands complex. Somewhat disturbed by tire tracks and grazing.
15-W-98	WM	PEM	0.07	41.0445173	-112.0065451	16	Relatively small wetland in pasture area that receives irrigation tail water and is dominated by common three-square. Adjacent to drainage channel (15-FD-99) and wetland (15-W-13) which are directly connected to the Great Salt Lake.
15-W-11	EM	PEM	4.44	41.04942374	-112.0186834	17	Wetland abutting wetland 15-W-11 in pasture area is dominated by Nuttall's alkaligrass, foxtail barley, and arctic rush. Dry during field sampling, but other indicators provide evidence of wetland hydrology and a direct connection to the Great Salt Lake.

**Table 6-1. Delineated Wetlands**

Wetland ID <sup>1</sup>	Cover Class <sup>2</sup>	Cowardin Code <sup>3</sup>	Size (acres) <sup>4</sup>	Latitude <sup>5</sup>	Longitude <sup>5</sup>	Map Sheet <sup>6</sup>	Description
15-IW-97	EM	PEM	0.94	41.05283795	-112.0274385	18	This wetland is mainly supported hydrologically by a flowing well on the east end of the polygon. Emergent vegetation includes sedges and rushes. At times, water flows west from the wetland through small channels/vegetated swales that terminate in surrounding pasture land (per field observations and communication with TNC).
AC09202016-1	WM	PEM	1.50	41.05153439	-112.0274414	18	Seasonally dry depressional saline wet meadows in pasture grazed by cattle. Although they are not all directly connected (portions of features are interspersed by upland grasslands), overall these wetlands appear to form a complex that adjoins lower wetlands within the Great Salt Lake wetlands complex. Vegetation includes saltgrass, spikerush, foxtail barley, seepweed, and alkaligrass.
DGAC09152016-2	WM	PEM	0.09	41.05135334	-112.0328846	18	
DGAC09152016-4	WM	PEM	0.05	41.05155586	-112.0318858	18	
DGAC09152016-5	WM	PEM	0.09	41.05184564	-112.0313012	18	
DGAC09162016-1	WM	PEM	0.97	41.05239944	-112.0305243	18	
DGAC09162016-2	WM	PEM	0.06	41.05127071	-112.0318882	18	
MP-05122017-1	WM	PEM	0.60	41.05127071	-112.0318882	18	
DGAC09162016-3	WM	PEM	0.04	41.05126972	-112.0305668	18	
DGAC09162016-5	WM	PEM	0.26	41.05218968	-112.028837	18	
MP09202016-1	WM	PEM	4.09	41.05379671	-112.0315092	18	
MP09192016-1	WM	PEM	8.15	41.04660599	-112.0277737	18	Seasonally dry wet meadow in radio towers parcel next to TNC visitors' entrance that adjoins the Great Salt Lake wetlands complex. Mixed vegetation includes Artic rush, saltgrass, and tall pepperweed. Vegetation includes saltgrass, spikerush, foxtail barley, seepweed, and alkaligrass.
ACJW08222016-2	EM	PEM	92.02	41.05497664	-112.0672403	19, 20, 22, 23	Extensive emergent marsh within survey area that extends to southwest in connection to Great Salt Lake wetlands complex. Vegetation includes cattail, common reed, and hardstem bulrush.

**Table 6-1. Delineated Wetlands**

Wetland ID <sup>1</sup>	Cover Class <sup>2</sup>	Cowardin Code <sup>3</sup>	Size (acres) <sup>4</sup>	Latitude <sup>5</sup>	Longitude <sup>5</sup>	Map Sheet <sup>6</sup>	Description
DGAC09122016-2	WM	PEM	0.29	41.05425173	-112.0535376	19	Seasonally dry depressional wet meadows with some disturbance. Adjacent to wetlands to south that are connected to the Great Salt Lake wetlands complex.
DGAC09122016-3	WM	PEM	0.66	41.05449235	-112.0545405	19	
DGAC09122016-4	WM	PEM	5.83	41.05647237	-112.0541786	19, 22	
MNAC09022016-1	WM	PEM	10.54	41.05587544	-112.0519105	19, 22	Relatively large wet meadows with some heavily disturbed areas. Largely dominated by saltgrass and alkaligrass. Located north of and separated by disturbed uplands from wetlands directly connected Great Salt Lake wetlands complex.
DGAC09132016-2	WM	PEM	3.85	41.0583005	-112.0518668	22	
MNAC09022016-2	WM	PEM	0.06	41.05731026	-112.0526451	22	
ACJW08262016-3	EM	PEM	0.26	41.05904098	-112.0673745	23	
MP09142016-1	WM	PEM	13.26	41.05654105	-112.0441755	19, 22	Wet meadow wetlands in irrigated fields with mixed vegetation including saltgrass, Nebraska sedge, foxtail barley, alkaligrass, and two-seed saltbush.
DGAC09132016-3	WM	PEM	6.86	41.05463578	-112.0459421	19	
DGAC09142016-1	WM	PEM	1.31	41.05332255	-112.0447808	19	
MNAC08302016-2	WM	PEM	3.68	41.0499391	-112.0518208	19	Wet meadow wetlands hat are connected to the Great Salt Lake wetlands complex with heavy disturbances on north end. Vegetation includes saltgrass, Artic rush, foxtail barley, and two-seed saltbush.
MNAC08312016-2	WM	PEM	10.08	41.05078594	-112.0538608	19	
MNAC08312016-5	WM	PEM	3.96	41.0510322	-112.0519604	19	
MNAC09012016-1	WM	PEM	2.13	41.05191268	-112.052385	19	
MNAC09012016-2	WM	PEM	2.01	41.05304723	-112.0541466	19	
MNAC08312016-1	EM	PEM	6.57	41.05144914	-112.0544822	19	Emergent marsh connected to the connected Great Salt Lake wetlands complex. Vegetation includes bulrush and common reed.



**Table 6-1. Delineated Wetlands**

Wetland ID <sup>1</sup>	Cover Class <sup>2</sup>	Cowardin Code <sup>3</sup>	Size (acres) <sup>4</sup>	Latitude <sup>5</sup>	Longitude <sup>5</sup>	Map Sheet <sup>6</sup>	Description
ACJW08222016-1	WM	PEM	9.90	41.0576672	-112.072658	20, 23	Seasonally dry saline wet meadow complex interspersed with saline scrub uplands. Despite that this complex appears heavily grazed, it appears to be a relatively unaltered and increasingly rare landscape unit. Abuts emergent marsh ACJW08222016-1 that is connected to Great Salt Lake wetlands complex.
MPMNAC08302016-1	WM	PEM	8.00	41.05789821	-112.0641469	20, 22, 23	Seasonally dry wet meadows that include small depressions swale-like features that abut emergent marsh ACJW08222016-1 which connects to the Great Salt Lake wetlands complex. Vegetation includes spikerush, saltgrass, Artic rush, threesquare, and Strawberry clover.
ACJW08262016-1	WM	PEM	0.84	41.05933275	-112.0687441	23	
ACJW08262016-2	WM	PEM	1.45	41.05952048	-112.0662314	23	
14-W-67	WM	PEM	12.06	41.0612468	-112.0443403	21, 22	Relatively large wetland in a pasture area between Bluff Road and Gentile Street. This wetland is either directly irrigated or receives irrigation drainage. Heavily vegetated with arctic rush and spikerush. Wetland abuts drainage channel 12-FD-37 which enters a series of relatively permanent flowing drainage features that eventually drain to the Great Salt Lake.
14-W-95	WM	PEM	2.88	41.05946083	-112.0424931	21, 22	Relatively small basin depressional wetland that appears to collect irrigation water in a grazed pasture managed for wildlife by The Nature Conservancy (TNC). Dominant species include spikerush, cattail, Nebraska sedge, and saltgrass. Wetland abuts a small drainage ditch with relatively permanent flows (14-FD-3) that eventually drains to the Great Salt Lake.
14-W-96A	WM	PEM	1.06	41.05727191	-112.0374236	21	Wetland in irrigated pasture managed for wildlife by TNC. Vegetation includes Nuttall's alkaligrass, foxtail barley, saltgrass, and saltmarsh bird's beak. Wetland is adjacent to drainage channel (14-FD-72) which has a direct connection to the Great Salt Lake.
14-W-96B	EM	PEM	0.66	41.05714886	-112.0368438	21	Wetland in irrigated pasture managed for wildlife by TNC. Leaky well provides supplemental hydrology to this wetland (per field observations and communication with TNC) that is dominated by common three-square. Wetland is adjacent to drainage channel (14-FD-72) which has a direct connection to the Great Salt Lake.

**Table 6-1. Delineated Wetlands**

Wetland ID <sup>1</sup>	Cover Class <sup>2</sup>	Cowardin Code <sup>3</sup>	Size (acres) <sup>4</sup>	Latitude <sup>5</sup>	Longitude <sup>5</sup>	Map Sheet <sup>6</sup>	Description
12-IW-25	WM	PEM	0.23	41.06725532	-112.0572952	22, 25	Small depressional wetlands near Bluff Road in dry and weedy disturbed pasture area with remnant saline features. Some small berms in swales at some wetland boundaries. Some features continue as non-wetland vegetated swales. Located around 4,230 AMSL.
12-IW-32	WM	PEM	0.66	41.06804317	-112.0583985	22, 25	
12-IW-33	WM	PEM	0.01	41.06652624	-112.058234	22	
MP-05122017-1	WM	PEM	0.60	41.05127071	-112.0318882	22	
12-IW-31	WM	PEM	1.81	41.06893619	-112.0595121	25	
14-W-61	EM	PEM	0.16	41.05969175	-112.046076	22	Small wetland around a flowing well in pasture area. Lower portions contain emergent vegetation. This wetland is adjacent to a small drainage ditch (14-FD-3) with relatively permanent flows that eventually drains to the Great Salt Lake.
14-W-66	EM	PEM	1.57	41.06400934	-112.0485946	22	Wetland in pasture between Bluff Road and a heavily disturbed area with fill material that creates a berm along the western edge of the wetland. Dominant species include arctic rush and clustered field sedge. Wetland abuts drainage channel 12-FD-52 which follows several relatively permanent flowing ditches that eventually drain to the Great Salt Lake.
DGAC09122016-5	WM	PEM	0.07	41.06000912	-112.0543015	22	Small seasonally dry wet meadow wetlands located in fields north of more expansive wetlands.
DGAC09132016-1	WM	PEM	0.37	41.05911593	-112.0517965	22	
13-W-61	EM	PEM	3.69	41.06254785	-112.0851884	23, 24	Emergent marshes that form mosaic with saline scrub uplands, open water and saline wet meadows. Connected to Great Salt Lake wetlands complex.
13-W-63	EM	PEM	6.70	41.06082797	-112.0799706	23, 24	
13-W-62	WM	PEM	2.29	41.06153702	-112.0813015	23, 24	Saline wetland meadow portion of mosaic landscape that adjoins emergent marshes.
ACDG07272016-1	WM	PEM	12.60	41.06628329	-112.0996286	24, 27	Fairly extensive seasonally dry wet meadow pastures (apart from flood irrigation) that connect to the Great Salt Lake wetlands complex. Vegetation includes saltgrass, spikerush, foxtail barley, seepweed, threesquare, Strawberry clover, reed canarygrass, and meadow fescue.
ACDG07272016-2	WM	PEM	8.03	41.06580206	-112.0954276	24, 27	

**Table 6-1. Delineated Wetlands**

Wetland ID <sup>1</sup>	Cover Class <sup>2</sup>	Cowardin Code <sup>3</sup>	Size (acres) <sup>4</sup>	Latitude <sup>5</sup>	Longitude <sup>5</sup>	Map Sheet <sup>6</sup>	Description
12-IW-18	WM	PEM	0.31	41.06873598	-112.0668529	25	Saline depressional wetland that is sparsely vegetated and surrounded by greasewood, disturbed pastures, and adjacent swale-like features that do not meet wetland or WOUS criteria. Other ditch features are located more than 200 feet away. Located above 4,230 AMSL.
12-IW-50	WM	PEM	0.11	41.06780909	-112.0677826	25	Small depressional wet meadow just north of 12-IW-47B. Vegetation includes spikerush, saltgrass, and threesquare. Located above 4,230 AMSL.
12-IW-58A	WM	PEM	1.50	41.07099385	-112.07009	26	Wetlands in low areas west of Bluff Road in pasture that is irrigated via field ditches and sheet flow from east. An abutting down-gradient ditch does not appear to carry a relatively permanent flow of water and terminates west of the wetlands. Located around 4,240 AMSL.
12-IW-58B	EM	PEM	0.71	41.07105239	-112.0706993	26	
12-IW-59	WM	PEM	0.88	41.07243531	-112.0707636	26	
12-W-21	WM	PEM	1.23	41.06868255	-112.0701133	26	Saline wet meadow just east of public works building. No apparent outlet or connection to other aquatic resources. Located above 4,230 AMSL.
12-W-50	WM	PEM	1.62	41.07593754	-112.0749762	26	Seasonal wet meadow in pasture field that might be drying out. Might drain to ditches that do not appear to flow regularly. Located above 4,230 AMSL.
MPDG07282016-2	WM	PEM	1.30	41.06841885	-112.1020802	27	Swale-like wet meadow in pasture that is lower and appears to collect more water than other nearby wet meadows. Vegetation cover is higher than adjacent areas and appears relatively lush through summer months. Adjacent to Great Salt Lake wetlands complex.
MPDG07282016-3	WM	PEM	2.30	41.06994404	-112.1025255	27	Seasonally dry saline wet meadow in pasture has low vegetation cover that appears to stem both from high salinity and grazing. Plant species include saltgrass, pickleweed, iodine bush, little barley and seepweed. Adjacent to Great Salt Lake wetlands complex.
MPDG07282016-2	WM	PEM	1.30	41.06841885	-112.1020802	27	Saline wet meadow in field generally dominated by saltgrass that is directly connected to Great Salt Lake wetlands complex. Adjacent to Great Salt Lake wetlands complex.
<b>Central Region Total</b>			<b>308.84</b>				

**Table 6-1. Delineated Wetlands**

Wetland ID <sup>1</sup>	Cover Class <sup>2</sup>	Cowardin Code <sup>3</sup>	Size (acres) <sup>4</sup>	Latitude <sup>5</sup>	Longitude <sup>5</sup>	Map Sheet <sup>6</sup>	Description
<b>North Region</b>							
09-IW-12	WM	PEM	0.10	41.08681505	-112.0864703	28	Wetlands located in low areas of pasture that is heavily grazed by cattle and is flood-irrigated by a concrete-lined ditch next to 3000 West. There is one culvert in a non-wetland area about 450 feet southwest of the edge of wetland 09-IW-12 that might help drain the field in case of very high water, but it appears that this field typically does not drain any surface water when irrigated. The concrete-lined ditch does not appear to have relatively permanent flows. Located above 2,040 AMSL.
09-IW-17	WM	PEM	4.53	41.08839968	-112.0865557	28, 29	
10-W-31	EM	PEM	1.43	41.08703007	-112.07901	28	Wetlands in excavated area are considered to be part of stormwater drainage system, but this area might have been wetland prior to excavation. Hydrology appears to be a combination of drainage and shallow groundwater. Dominant plants include cattail, hardstem bulrush, common reed, arctic rush and spikerush. South end (wetland 03-W-30) abuts an irrigation field ditch. Drop inlet structures drain this area (observed flowing); drainage system eventually drains to the Great Salt Lake.
10-W-43	EM	PEM	2.43	41.08512195	-112.077571	28	
10-W-43B	WM	PEM	2.43	41.08512195	-112.0776		
10-W-51	EM	PEM	1.61	41.08292333	-112.075603	28	
03-W-30	EM	PEM	0.03	41.0819659	-112.0745018	28	
MP-05312017-5	WM	PEM	0.03	41.087023	-112.0802	28	Small depressional wet meadow.
08-IW-26A	WM	PEM	8.83	41.09196134	-112.0825605	30	Large pasture field wetland along Bluff Road with horses, but does not appear overgrazed. The north end of this field is the lowest, wettest area and contains tall emergent vegetation including common reed and bulrush (08-IW-26B). Arctic rush and clustered field sedge are dominant plant species the wet meadow portion. Channel 08-FD-56 drains into 08-IW-26B there is an inlet structure on northeast end of the wet meadow from the Layton Canal (buried along the east side of the field. A former dry roadside ditch along the west side is no longer present. The southern end of the field gradually becomes higher and drier into uplands. This wetland (08-IW-26A) and adjoining emergent marsh (08-IW-26B) in this pasture do not appear to have any defined outlets that would provide a downstream hydrologic connection to other waters. Located above 2,040 AMSL.
08-IW-26B	EM	PEM	2.80	41.09354848	-112.0832057	30	

**Table 6-1. Delineated Wetlands**

Wetland ID <sup>1</sup>	Cover Class <sup>2</sup>	Cowardin Code <sup>3</sup>	Size (acres) <sup>4</sup>	Latitude <sup>5</sup>	Longitude <sup>5</sup>	Map Sheet <sup>6</sup>	Description
08-W-27	EM	PEM	4.62	41.09930059	-112.0885378	30, 31, 32	Wetland in excavated area that likely receives supplemental hydrology from adjacent golf course. Vegetation includes common reed, arctic rush, saltgrass, and foxtail barley. Drains into drainage channel (08-FD-94) which eventually drains to the Great Salt Lake.
07-W-38	EM	PEM	7.90	41.10974613	-112.0996186	32	Emergent marsh features downslope from bluff in area that appears historically disturbed. Weedy within wetlands and surrounding uplands. Plant species include reed canarygrass, common reed, cattail, teasel, and tall pepperweed. Adjoin large wet meadow pasture to west and south.
07-W-40	EM	PEM	0.40	41.11035444	-112.0991262	32	
MP-06012017-3	WM	PEM	0.18	41.110226	-112.099547	32	
07-W-42	EM	PEM	1.31	41.10827727	-112.0979603	32	
07-W-39	WM	PEM	16.82	41.10868498	-112.1004519	32, 33	Large seasonally dry wet meadow pastures. Common plant species include saltgrass, Artic rush, threesquare, and meadow fescue. Abuts drainage channel 08-FD-90.
07-W-41	WM	PEM	28.89	41.1056016	-112.0982244	32, 33	
06-W-30	EM	PEM	14.07	41.12130017	-112.1056182	34, 35	Large emergent marsh dominated by cattail (about 90% cover) and about 40% cover by saltgrass. Located in fields at base of bluff. Connects to drainage (06-OW-93) that eventually drains to Great Salt Lake.
07-W-37	WM	PEM	12.90	41.11323932	-112.1018949	34	Large wet meadow in eastern half of pasture as base of bluff. Dominant species include strawberry clover, Artic rush, clustered field sedge, and meadow fescue. Connected to drainage 07-OW-08.
05-IW-22	WM	PEM	0.24	41.13098797	-112.1080366	35	Disturbed depressional wet meadows with some surrounding fill piles. No apparent outlet or connections to other aquatic resources.
06-IW-31	WM	PEM	1.16	41.12986083	-112.108485	35	
05-W-69	WM	PEM	1.63	41.1310334	-112.1104245	35	Wet meadow pasture dominated by alkaligrass, foxtail barely, and prickly lettuce. Adjacent to canal 03-OW-99.
06-W-16	WM	PEM	0.01	41.12445535	-112.1070837	35	Small depressional wet meadow without any apparent connection to other aquatic resources. Vegetation includes field sedge, spike bentgrass, saltgrass, threesquare, and foxtail barley.
06-W-88	WM	PEM	9.14	41.12705798	-112.1072701	35	Large wet meadow at the base of the bluff. Southeast end is adjacent to roadside drainage 06-OW-93. South end is adjacent to a roadside ditch that does not appear to carry relatively permanent flows.
05-IW-46	WM	PEM	0.01	41.13414988	-112.1050746	37	Small wet meadow in weedy field. Plant species include Artic rush and saltgrass. No apparent outlet or connection to other aquatic resources.

**Table 6-1. Delineated Wetlands**

Wetland ID <sup>1</sup>	Cover Class <sup>2</sup>	Cowardin Code <sup>3</sup>	Size (acres) <sup>4</sup>	Latitude <sup>5</sup>	Longitude <sup>5</sup>	Map Sheet <sup>6</sup>	Description
05-W-17	WM	PEM	0.29	41.13517605	-112.1053188	37	Wet meadows in weedy field. Plant species include Artic rush, spikerush, saltgrass, and spike bentgrass. 05-W-18 is adjacent to 05-W-17 which is adjacent to 05-OW-83.
05-W-18	WM	PEM	0.45	41.13516169	-112.1047617	37	
05-W-20	WM	PEM	0.43	41.13879017	-112.1045468	37	Depressional wet meadows in fields just north of open water pond 05-OW-73. Dominant species include saltgrass and foxtail barley.
05-W-34	WM	PEM	0.19	41.13881708	-112.1037122	37	
05-W-21	EM	PEM	0.60	41.13734441	-112.1058312	37	Emergent marsh features that abut open water pond 05-OW-73 and are dominated by cattail, bulrush and common reed.
05-W-72	EM	PEM	0.74	41.13658363	-112.1050975	37	
05-W-74	EM	PEM	0.53	41.13815335	-112.10426	37	
05-W-33	EM	PEM	0.05	41.1367406	-112.1096818	37	Small emergent marsh in surrounding residential area dominated by common reed. Connected to 05-OW-84.
05-W-71	WM	PEM	19.16	41.13760891	-112.1070602	37	Large slope wet meadow in pasture field. Relatively diverse plant species including Nebraska sedge, Artic rush, threesquare, alkaligrass, meadow fescue, saltgrass, and two-seed saltbush. Connected to drainage 05-OW-15.
05-W-71a	EM	PEM	2.61	41.138853	-112.107473	37	Portions of the same overall wetland area as 05-W-71 that are dominated by emergent vegetation including bulrush, cattail, threesquare, Artic rush, and spikerush.
05-W-71b	EM	PEM	2.41	41.136341	-112.107329	37	
05-W-32	EM	PEM	1.44	41.13414348	-112.1075762	37	Wetland with largely emergent marsh vegetation in pasture field that includes cattail, Nebraska sedge, Artic rush, threesquare, and saltgrass Adjacent to 05-W-71.
<b>North Region Total</b>			<b>149.72</b>				
<b>Total Wetlands in Survey Area</b>			<b>732.65</b>				

<sup>1</sup> Each Wetland Feature ID provides a unique name for each wetland feature. While the naming convention for these features is often associated with corresponding delineation points and delineators, the numbering for features initially delineated in 2012 does not apply to the current delineation map series. Consequently, feature identification names (for both wetlands and other aquatic resources) and delineation point IDs in Appendix H best represent unique identifiers rather than a systematic convention.

<sup>2</sup> Cover Class refers to general vegetative cover classes: EM (emergent marsh), WM (wet meadow), and P (playa).

<sup>3</sup> Codes from *Classification of Wetlands and Deepwater Habitats of the United States* (Cowardin et al. 1979): PEM (palustrine emergent) and PUB (palustrine unconsolidated bottom).

<sup>4</sup> Area of wetland within the survey area boundaries. Values rounded to 2 decimal places.

<sup>5</sup> Degrees coordinates (WGS 84) provide the polygon centroid location for each delineated feature.

<sup>6</sup> See Appendix A, Aquatic Resource Delineation Map Series. Wetlands in this table are generally ordered by region (south, central, and north) and map sheet number.

## 6.2 Other Aquatic Resources

As described in Section 3.3, other (non-wetland) waters were delineated based on the presence of bed and bank, an OHWM, and evidence of carrying a relatively permanent flow of water (USACE 2008a).

A total of 60.85 acres of other waters were delineated within the survey area that consisted of seven streams, 63 other linear water features (such as ditches, canals, and drainage channels), and 14 open-water features. The maps in Appendix A, Wetlands and WOUS Delineation Maps, include labeled depictions of all of these features within the survey area. All linear water features are categorized on the maps as “Waterway,” and line transects of OHWM width measurements are provided for each stream. Table 5-2 lists water features by type and provides feature IDs, average width and length within the survey area for linear features, feature size (acres), and a brief description of each feature. Although playa features are technically a non-wetland aquatic feature, they are included with delineated wetlands in Table 5-1.

### Streams

Seven stream segments were delineated within the survey area. Headwaters for all of these streams are found in the Wasatch Mountains, several miles east of the survey area. These streams generally flow west to southwesterly across the survey area and eventually drain into the Great Salt Lake. All seven of the streams are located within the Central and South Regions of the survey area. Six of these streams appear to flow perennially, and one flows intermittently (Steed Creek). At least portions of some stream segments are in constructed channels where natural channels have been removed. Nevertheless, all of these entire segments within the survey area have been classified as streams (see Appendix A, Aquatic Resource Delineation Map Series). Refer to Table 5-2 for specific information regarding the characteristics of each of the streams in the survey area.

### Other Linear Aquatic Features

In addition to seven stream segments, 63 linear water features were delineated in the survey area. These features include irrigation ditches, canals, stormwater drainage channels, and other constructed channels that appear to carry irrigation tailwater, surface drainage, and stormwater. All of these features has a defined bed and bank, has an OHWM, and appears to carry a relatively permanent flow of water. Summary comments in Table 6-2 reflect multiple observations during the during summer months.

All of these water features appear to be connected to other water features that eventually drain to the Great Salt Lake (open waters or wetlands complex). All of these features appear

#### What is irrigation tailwater?

*Irrigation tailwater* is surface runoff from irrigation. In the survey area, several constructed channels collect tailwater from adjacent agricultural fields and eventually drain into the Great Salt Lake.



to be either entirely human-made or heavily modified in order to provide water delivery or drainage functions. Some segments of these features contain little vegetation, while others are dominated by upland vegetation. Some features contain hydrophytic vegetation along banks and sometimes within channel features. Irrigation ditches and drainage channels often begin to fill in with hydrophytic vegetation when they are not regularly maintained. Drainage features that appear completely naturalized and filled in with wetland vegetation were delineated as wetlands and are included in Section 5.1.1.

### **Open-Water Features**

Fourteen open-water features were delineated in the survey area. All of these features are ponds or basins that appear to be either entirely human-made or modified to create open-water conditions. These features typically lack much vegetation. Most of these features appear to be associated with irrigation, stock watering, or drainage functions.

**Table 6-2. Other Delineated Aquatic Resources**

Name	Resource ID	Type	Average Width (ft.) <sup>1</sup>	Size (ac) <sup>2</sup>	Length (ft.) <sup>3</sup>	Latitude <sup>4</sup>	Longitude <sup>4</sup>	Map Sheet <sup>5</sup>	Comments
<b>Streams</b>									
Davis Creek	25-R-37	Perennial stream	23.4	0.34	628	40.95698376	-111.8946741	1	Fairly large channelized drainage that is designed and maintained to carry a lot of drainage waters including stormwater. Woody species near banks are mainly Russian olive. OHWM determined by staining on riprap and vegetation changes.
Steed Creek	25-R-36	Intermittent stream	5.5	0.38	2,387	40.96093274	-111.8931169	1, 3	Constructed channel designed with Legacy Parkway to mimic natural stream channel adjacent to roadway and paved trail. Lined with riprap. Lacks much vegetation. Dries out at times during summer. OHWM determined by staining on riprap. Drains into Davis Creek.
Farmington Creek	25-R-98	Perennial stream	18.5	0.75	1,599	40.96712444	-111.915793	4	Stream with a straightened channel that has a relatively narrow band of woody riparian vegetation with many large crack willows. Mostly just standing water observed during summer months, so could be considered intermittent. OHWM determined by shelving and vegetation changes. Drains into Farmington Bay.
Haight Creek	20-R-94	Perennial stream	8.4	0.46	1,893	40.99415901	-111.9390457	8	Channel runs mainly through grazed pasture and is not included on USGS maps as stream within survey area, but constructed channel is labeled as Haight Creek by Davis County. Channel is only a couple feet deep and essentially functions as a sizable drainage ditch. Mainly lacks a woody riparian component within the survey area. OHWM determined by vegetation changes near top of bank. Drains into emergent marsh that is part of the Great Salt Lake wetland complex.
Baer Creek	20-R-95	Perennial stream	10.8	0.20	841	40.99585568	-111.9431591	8	Stream with steep slopes has fairly robust woody riparian vegetation up-gradient, but this vegetation lessens in survey area to few trees. OHWM determined by vegetation changes. Drains into wetland that is part of the Great Salt Lake wetland complex.
Holmes Creek	17-R-92	Perennial stream	12.8	0.88	2,332	41.01734261	-111.9740591	12	Small stream that drains to the Great Salt Lake is highly channelized with steep, incised banks. Quite weedy along banks with about 10% cover by woody species (Russian olive, box elder, cottonwood, and willow). Herbaceous layer includes perennial pepperweed, yellow sweet clover, and teasel. OHWM determined by shelving and vegetation changes.
Kays Creek	16-R-77	Perennial stream	21.5	0.80	1,286	41.039785	-111.9997609	15	Stream that drains to the Great Salt Lake with OHWM determined by shelving and vegetation changes. Some fairly large trees along relatively steep banks (about 3:1 slope) observed in 2012 and 2013 (Russian olive, Siberian elm, and crack willow) have largely been removed by an unrelated project. Heavily grazed pasture lands adjacent to top of banks.
<b>Total</b>				<b>3.81</b>	<b>10,966</b>				

**Table 6-2. Other Delineated Aquatic Resources**

Name	Resource ID	Type	Average Width (ft.) <sup>1</sup>	Size (ac) <sup>2</sup>	Length (ft.) <sup>3</sup>	Latitude <sup>4</sup>	Longitude <sup>4</sup>	Map Sheet <sup>5</sup>	Comments
<i>Other Linear Water Features</i>									
	19-FD-30	Ditch/ drainage channel	8.0	0.09	465	40.95598578	-111.8936206	1	Starts out about 3 feet wide, then slowly widens out to nearly 15 feet. Drains into wetlands abutting Davis Creek. Russian olive along banks.
	19-FD-32	Ditch/ drainage channel	3.0	0.24	1,001	40.95300393	-111.8933597	1	Has ponded water from culvert under Legacy Parkway, then flows northwest. Contains some wetland vegetation.
	19-FD-33	Ditch/ drainage channel	5.0	0.09	594	40.95614961	-111.8940661	1	Drainage with flowing water observed during summer months.
	26-FD-15	Ditch/ drainage channel	13.0	0.37	1,149	40.95501086	-111.8901598	1	Drainage channel east of I-15 that appears to have regular flows.
	26-FD-71	Ditch/ drainage channel	3.0	0.01	169	40.95588765	-111.889421	1	Flows west into wetland 26-W-18.
	26-FD-77	Ditch/ drainage channel	3.0	0.01	106	40.95042518	-111.892313	1	Channel flows west under Legacy Parkway.
	26-FD-78	Ditch/ drainage channel	3.0	0.01	192	40.95066352	-111.892252	1	Vegetated ditch flows northwest to culvert under Legacy Parkway.
	25-FD-02	Ditch/ drainage channel	11.0	0.25	801	40.95960413	-111.8903693	1, 3	Large drainage channel just east of I-15 with some wetland vegetation.
	25-FD-72	Ditch/ drainage channel	5.0	0.02	86	40.96316588	-111.9048157	3	Channel that drains field into wetland 25-W-56.
	25-FD-80	Ditch/ drainage channel	3.0	0.01	88	40.96356639	-111.8921441	3	Flowing channel abuts wetland 25-W-35 and drains west under Legacy Parkway.

**Table 6-2. Other Delineated Aquatic Resources**

Name	Resource ID	Type	Average Width (ft.) <sup>1</sup>	Size (ac) <sup>2</sup>	Length (ft.) <sup>3</sup>	Latitude <sup>4</sup>	Longitude <sup>4</sup>	Map Sheet <sup>5</sup>	Comments
	25-FD-89	Drainage Channel	8.0	0.45	2,025	40.96021024	-111.9027104	3	Drainage channel between County Road (Sheep Lane) and the Denver & Rio Grande Western (D&RGW) rail line. Seems to maintain standing water into the summer and has some wetland vegetation in channel and within banks.
	25-FD-60	Ditch/ drainage channel	17.0	0.18	919	40.96478467	-111.9068945	4	Channel that seems to carry regular flows that may support abutting wetlands. Drains into Farmington Bay.
	25-FD-90	Drainage channel	14.0	0.10	367	40.96180974	-111.9059048	4	Segment of defined channel within wetland complex drainage that drains into emergent marsh 25-W-56A.
	24-FD-99	Ditch/ drainage channel	16.0	0.95	1,542	40.96777676	-111.9249054	4, 5	Large drainage canal that drains into Farmington Bay.
	22-FD-70	Drainage channel	18.0	0.42	1,718	40.97818712	-111.9362369	6	Large constructed drainage channel. Collects stormwater and appears to also capture flows from Shepard Creek. Drains into large open-water pond (22-OW-70). Emergent marsh 22-W-70 abuts this open channel within a broad swale-like drainage.
	22-FD-81	Drainage channel	7.0	0.13	869	40.98997534	-111.9371745	7	Stormwater drainage channel with flowing/standing water.
	20-FD-95	Ditch/ drainage channel	4.0	0.01	127	40.99595937	-111.9428915	8	Flowing ditch that empties into Baer Creek.
	18-FD-54	Drainage channel	14.0	0.26	655	41.00461931	-111.9562966	10	Wide stormwater drainage channel that drains into the Great Salt Lake wetlands complex.
	18-FD-94	Drainage channel	10.00	0.31	851	41.00832911	-111.9601119	10	Large stormwater drainage channel with a lot of wetland vegetation in channel and along banks.
	18-FD-93	Drainage channel	14.2	0.78	1,244	41.0119554	-111.9659983	10, 11	Relatively large drainage channel. Appears constructed to mimic a natural stream. Some reed canarygrass and saltcedar along banks.
	18-FD-58	Drainage swale	3.0	0.01	122	41.01220803	-111.9668188	11	Drainage swale channel that drains into feature 18-FD-93.
	18-FD-10	Ditch/ drainage channel	5.0	0.13	1,097	41.0155119	-111.9673268	12	Irrigation/drainage ditch that appears to at least maintain standing water.
	17-FD-91	Drainage channel	10.0	0.25	1,269	41.02604088	-111.9783532	13	Large drainage channel down-gradient from detention basin in neighborhood that drains to the Great Salt Lake.

**Table 6-2. Other Delineated Aquatic Resources**

Name	Resource ID	Type	Average Width (ft.) <sup>1</sup>	Size (ac) <sup>2</sup>	Length (ft.) <sup>3</sup>	Latitude <sup>4</sup>	Longitude <sup>4</sup>	Map Sheet <sup>5</sup>	Comments
	09-FD-30	Ditch/ drainage channel	9.0	0.22	1,164	41.03125095	-111.9890961	14	Flowing drainage ditch with some vegetation along banks.
	09-FD-31	Ditch/ drainage channel	2.0	0.07	1,015	41.03114157	-111.9860818	14	Ditch that appears to flow underground into 09-FD-30.
	16-FD-32	Ditch/ drainage channel	3.0	0.12	1,725	41.04151875	-112.0005019	15	Drainage ditch that drains into Kays Creek.
	08-FD-56	Drainage channel	3.0	< 0.01	55	41.09438937	-112.0830774	15	Flows from culvert under road and into low wetland area (08-IW-26B). Loses OHWM once it enters wetland.
	15-FD-14	Ditch/ drainage channel	5.0	0.03	282	41.04610168	-112.0070813	16	Roadside drainage ditch with flowing/standing water.
	15-FD-99	Drainage channel	14.0	1.15	958	41.04325739	-112.005704	16	Fairly large drainage channel that includes a wider pond-like portion.
	15-FD-65	Ditch/ drainage channel	6.0	0.21	1,354	41.05090937	-112.0167232	17	Stormwater drainage ditch.
	15-FD-64	Drainage channel	16.0	0.64	1,758	41.0485791	-112.0158615	17	Relatively large channel that appears to be part to a stormwater drainage system.
	14-FD-72	Drainage channel	18.2	0.41	1,492	41.05529738	-112.0357985	18, 21	Relatively large stream-like drainage channel with some riparian vegetation along banks (reed canary grass, Russian olive).
	14-FD-49	Ditch/ drainage channel	3.0	0.02	336	41.06071892	-112.0424706	21	Swale-like drainage ditch with wetland vegetation that appears to have frequent flows.
	14-FD-71	Drainage channel	25.0	0.08	115	41.06128706	-112.0419469	21	Broad channel with emergent vegetation that drains large agricultural field.
	14-FD-01	Ditch/ drainage channel	3.0	0.02	1,475	41.0597372	-112.0431133	21, 22	Small drainage ditch.
	14-FD-37	Ditch/ drainage	6.0	0.15	1,108	41.06028601	-112.0433153	21, 22	Relatively large roadside drainage ditch that appears to maintain some flows perennially.

**Table 6-2. Other Delineated Aquatic Resources**

Name	Resource ID	Type	Average Width (ft.) <sup>1</sup>	Size (ac) <sup>2</sup>	Length (ft.) <sup>3</sup>	Latitude <sup>4</sup>	Longitude <sup>4</sup>	Map Sheet <sup>5</sup>	Comments
		channel							
	14-FD-53	Ditch/ drainage channel	4.0	0.14	1,512	41.06176167	-112.0430374	21, 22	Roadside ditch with intermittent wetland vegetation along banks; seems to have standing water often.
	12-FD-52	Ditch/ drainage channel	8.0	0.47	561	41.06521239	-112.0491355	22	Deep, road-side drainage ditch with vegetation along banks.
	14-FD-03	Ditch/ drainage channel	2.0	0.01	730	41.05981387	-112.0454777	22	Small drainage ditch.
	12-FD-42	Drainage channel	10.0	0.51	1,481	41.06403217	-112.0548324	22	Large constructed flowing channel, about 15 feet deep from top of banks.
	13-OW-85	Drainage channel	30	0.16	410	41.05970863	-112.0627989	22, 23	Large open water drainage channel that drains into wetlands connected Great Salt Lake wetlands complex.
	13-OW-85a	Drainage channel	22.5	0.04	615	41.05898899	-112.0631866	23	
	13-OW-85b	Open water pond	18.5	0.32	45	41.05911417	-112.0627013	22, 23	
	12-FD-49	Ditch/ drainage channel	6.0	0.10	1,457	41.06703166	-112.0646061	23, 25	Relatively large roadside drainage ditch that appears to maintain some flows perennially.
	11-OW-89	Drainage channel	33.0	0.25	905	41.06903384	-112.0921387	24, 27	Broad drainage that appears to pond water as in drains into the Great Salt Lake wetlands complex. Banks include emergent vegetation.
	11-FD-95	Drainage channel	9.0	0.04	193	41.071888	-112.102835	27	Drainage ditch across agricultural fields with vegetation along banks.
	03-FD-21	Ditch/ drainage channel	4.0	0.15	1,645	41.0802453	-112.0721925	28	Roadside drainage ditch with flowing/standing water.
	08-FD-94	Drainage channel	12.0	0.26	828	41.09663219	-112.0860239	30	Flowing waterway between wetland (08-W-27) with a culvert to golf course pond.
	07-OW-91	Ditch/ drainage channel	3.0	0.10	1,398	41.11041903	-112.1005904	32, 33	Ditch that drains to 07-OW-85
	08-FD-90	Ditch/ drainage	6.0	0.12	826	41.10374028	-112.0981456	32, 33	Roadside drainage ditch along 700 South.

**Table 6-2. Other Delineated Aquatic Resources**

Name	Resource ID	Type	Average Width (ft.) <sup>1</sup>	Size (ac) <sup>2</sup>	Length (ft.) <sup>3</sup>	Latitude <sup>4</sup>	Longitude <sup>4</sup>	Map Sheet <sup>5</sup>	Comments
		channel							
	07-OW-85	Drainage channel	15.0	1.56	1,689	41.11090433	-112.1024602	32, 33, 34	Large stormwater drainage channel with regular flowing/standing water that drains to Great Salt Lake.
	07-OW-08	Drainage channel	22.0	0.83	1,652	41.1161491	-112.1028959	34	Relatively large channel that appears abandoned but still collects water and appears to carry relatively permanent flows.
	03-OW-99	Canal	8.0	0.88	4,724	41.14334904	-112.1081571	34,35,37	Irrigation canal.
	05-OW-30	Ditch/ drainage channel	16.5	0.08	148	41.13248094	-112.1081398	35	Drainage channel with overgrown vegetation from retention basin (05-CW-68).
	06-OW-92	Ditch/ drainage channel	2.4	0.01	198	41.12440361	-112.106221	35	Vegetated drainage channel that connects to 06-OW-93.
	06-OW-93	Ditch/ drainage channel	3.0	0.06	1,147	41.12511042	-112.1083742	35	Vegetated drainage channel along 800 North.
	05-OW-83	Ditch/ drainage channel	4.0	0.12	1,334	41.13476895	-112.1054807	35,37	Ditch that conveys water from pond (05-OW-73).
	05-OW-00	Ditch/ drainage channel	5.0	0.04	219	41.13995381	-112.1123236	37	Roadside drainage ditch with flowing/standing water on 1800 North.
	05-OW-01	Ditch/ drainage channel	7.0	0.07	825	41.13996195	-112.1105103	37	Roadside drainage ditch with flowing/standing water on 1800 North.
	05-OW-15	Ditch/ drainage channel	22.0	0.04	85	41.1376945	-112.1080189	37	Open drainage channel segment that is somewhat impounded by canal round. Connects to 05-OW-84.
	05-OW-19	Ditch/ drainage channel	16.5	0.10	189	41.13769558	-112.1034467	37	Channel that carries water to pond (05-OW-73).
	05-OW-82	Ditch/ drainage channel	5.0	0.05	390	41.13634266	-112.1039908	37	Ditch that conveys water from pond (05-OW-73).



**Table 6-2. Other Delineated Aquatic Resources**

Name	Resource ID	Type	Average Width (ft.) <sup>1</sup>	Size (ac) <sup>2</sup>	Length (ft.) <sup>3</sup>	Latitude <sup>4</sup>	Longitude <sup>4</sup>	Map Sheet <sup>5</sup>	Comments
	05-OW-84	Drainage channel	21.0	1.53	2,577	41.13589684	-112.1136982	37	Carries flows from w pond (05-OW-73) and drains to Howard Slough then to Great Salt Lake.
			Total	16.24	58,076				
Open Water Features									
	MP-05252017-OW	Open water pond		0.53		40.9686046	-111.923253	4	Small depressional feature in an alfalfa field that appears to collect irrigation water.
	24-IW-45	Open water pond		1.25		40.9686046	-111.923253	4	Depressional feature in heavily disturbed area that collects water in local area. It has a little seepweed fringe and might have dried out seasonally in the past but is currently functioning as an open water pond. Adjacent to several dirt piles from apparent construction activity. No defined outlet/connection through uplands to drainage channel (24-FD-99) about 300 feet to the southwest.
	22-OW-70	Open water pond		24.57		40.97869522	-111.9390234	6, 7	Large constructed pond within or adjacent to the Great Salt Lake wetlands complex.
	20-OW-04	Open water basin		0.27		40.99560425	-111.9462541	9	Constructed basin delineated as open water near berm; remainder of basin delineated as wetland (20-W-25). Basin appears to be constructed in wetland area. No outlet through berm, but adjacent to wetlands to the west.
	20-OW-23	Open water pond		0.94		40.99899914	-111.9510053	9	Sewage treatment plant settling pond near edge of the Great Salt Lake wetland complex. Possibly excavated in wetland area.
	20-OW-69	Open water pond		0.16		41.00034571	-111.9528103	9	Excavated pond at the edge of the Great Salt Lake wetland complex.
	16-OW-05	Open water pond		0.51		41.0307327	-111.9920899	14	Farm pond, potentially a wetland in the past. Near the Great Salt Lake wetland complex.

**Table 6-2. Other Delineated Aquatic Resources**

Name	Resource ID	Type	Average Width (ft.) <sup>1</sup>	Size (ac) <sup>2</sup>	Length (ft.) <sup>3</sup>	Latitude <sup>4</sup>	Longitude <sup>4</sup>	Map Sheet <sup>5</sup>	Comments
Jensen Nature Park	12-OW-90	Open water pond		6.17		41.06616977	-112.0534659	22	Constructed pond in park that provides habitat for birds and fish and drains into feature 12-FD-42.
	14-OW-63	Open water pond		0.01		41.05967041	-112.0459834	22	Small pond by leaking well, surrounded by wetland.
	MPDG-20160729-OW	Open water pond		1.69		41.06103245	-112.0828838	23, 24	Open water portion of mosaic landscape.
	MPDG-OW-20160728	Open water pond		0.67		41.06707241	-112.0977645	24, 27	Open water stock pond.
	25-OW-92	Open water pond		0.45		41.06841885	-112.1020802	27	Ponds apparently established by excavation in wetland area that is connected to other wetlands in the Great Salt Lake wetlands complex.
	25-OW-93	Open water pond		0.57		41.06994404 - 112.1025255	-112.1025255	27	See 25-OW-92
	05-OW-73	Open water pond		3.23		41.13755846	-112.1048601	37	Constructed pond that is somewhat naturalized to provide wildlife habitat.
<b>Total</b>				<b>40.80</b>					
<b>Total non-wetland Resources in Survey Area</b>				<b>60.54</b>	<b>69,042</b>				

<sup>1</sup> Average width values rounded to 1 decimal place.

<sup>2</sup> Area of aquatic resource within the survey area boundaries. Values rounded to 2 decimal places.

<sup>3</sup> Length values rounded to nearest linear foot.

<sup>4</sup> Degrees coordinates (WGS 84) provide the polygon centroid location for each delineated feature.

<sup>5</sup> See Appendix A, Aquatic Resource Delineation Map Series.

## 6.2.2 Constructed Features

Seventeen constructed features totaling 18.29 acres have been identified as constructed features that are believed to be exempt from jurisdiction. These areas include golf course water features (ponds and channels) and human-made water quality treatment facilities such as detention and retention basins that have been constructed in uplands. Other man-made or altered features that appear to have been constructed in wetlands or other aquatic sites have been included in Section 5.1. Table 6-3 provides specific information about each constructed feature.

**Table 6-3. Constructed Features**

Feature ID	Size (acres) <sup>1</sup>	Type	Latitude <sup>2</sup>	Longitude <sup>2</sup>	Map Sheet <sup>3</sup>
19-CW-31	0.03	Legacy Parkway water quality basin	40.95068	-111.893	1
25-CW-41	0.42	Legacy Parkway water quality basin	40.95716	-111.893	1
26-CW-40	0.37	Legacy Parkway water quality basin	40.95569	-111.893	1
26-CW-43	0.62	Legacy Parkway water quality basin	40.95386	-111.893	1
26-CW-44	0.32	Legacy Parkway water quality basin	40.95213	-111.893	1
17-CW-22	1.20	Stormwater basin	41.02011	-111.973	12
16-CW-04	1.34	Stormwater basin	41.0308	-111.985	14
15-CW-66	0.75	Stormwater basin	41.0487	-112.016	17
15-CW-10	4.20	Stormwater basin	41.05243	-112.025	17, 18
14-CW-06	0.95	Stormwater basin	41.05652	-112.035	18, 21
10-CW-63	0.63	Stormwater basin	41.08754	-112.077	28
08-CW-03	1.57	Golf course water feature	41.0938	-112.086	30
08-CW-17	0.90	Golf course water feature	41.09303	-112.085	30
09-CW-02	1.87	Golf course water feature	41.09061	-112.086	30
08-CW-89	2.29	Golf course water feature	41.09875	-112.089	30, 31, 32
07-OW-86	0.58	Stormwater basin	41.11064	-112.105	33
05-CW-68	0.25	Stormwater basin	41.13226	-112.107	35
<b>Total</b>	<b>18.29</b>				

**Table 6-3. Constructed Features**

Feature ID	Size (acres) <sup>1</sup>	Type	Latitude <sup>2</sup>	Longitude <sup>2</sup>	Map Sheet <sup>3</sup>
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<sup>1</sup> Area of constructed feature within the survey area boundaries. Values rounded to 2 decimal places.

<sup>2</sup> Degrees coordinates (WGS 84) provide the polygon centroid location for each delineated feature.

<sup>3</sup> See Appendix A, Aquatic Resource Delineation Map Series.

### 6.2.3 Irrigation and Roadway Drainage Features

The survey area contains numerous irrigation ditches, roadside stormwater drainage swales and ditches, and other channel-like features. Ditches and drainage channels that appear to be subject to jurisdiction under Section 404 of the CWA have been included as linear aquatic resources, as described in Section 5.1.2.

Some other ditches and channels exhibit a bed and bank but do not appear to carry a relatively permanent flow of water. Many of these features are ditches that are used to irrigate pasturelands and croplands. These ditches were observed as either routinely dry or carrying irrigation water some days and then drying out on other days during the growing season. Prominent ditches and channels lacking relatively permanent flow that are not believed to be subject to jurisdiction under Section 404 of the CWA are included on the maps in Appendix A as “Agricultural/Roadside Ditch.” These features are not included in report tables or the calculations for aquatic resources.

Other linear features are not included on the maps. These features include smaller field ditches and vegetated swales that typically do not exhibit a defined bed and bank or OHWM and do not have a predominance of hydrophytic vegetation.

## 6.3 Jurisdictional Status of Delineated Aquatic Resources

Most aquatic resources in the survey area appear to be connect to the Great Salt Lake, either through direct connection to the Great Salt Lake wetlands complex or as tributaries or waters adjacent to tributaries to the Great Salt Lake. Table 5-1 and Table 5-2 provide information on the locations and relationships of wetlands and other aquatic resources with other waters.

The Great Salt Lake is a traditional navigable waterbody (TNW). Therefore, under current guidance the USACE asserts jurisdiction over delineated wetlands that are adjacent to the Great Salt Lake (such as the lake’s wetland complex) and streams and other drainages that are relatively permanent non-navigable tributaries of the Great Salt Lake. The USACE also asserts jurisdiction over wetlands that directly abut relatively permanent non-navigable tributaries of TNW. If an approved jurisdictional determination is requested under current CWA guidance, the USACE would decide jurisdiction over wetlands that are adjacent but not abutting to relatively permanent non-navigable tributaries. Any wetlands adjacent to non-navigable tributaries that lack a significant nexus to a TNW or other wetlands that are determined to be isolated would not be subject to CWA jurisdiction.

## 7.0 Summary

HDR has conducted a delineation of all aquatic resources including wetlands within the survey area. All areas within the survey area were assessed to the degree necessary to determine the presence or absence of wetlands and resources per the guidelines established by USACE. One hundred ninety-six wetlands were delineated totaling 732.65 acres within the survey area. A separate report, West Davis Corridor Wetland Functional Assessment Report, describes methods and results of the functional assessment conducted for the delineated wetlands.

A total of 60.85 acres of other aquatic resources were delineated within the survey area as jurisdictional features and consist of seven streams (10,966 linear feet), 63 other linear water features (58,076 linear feet), and 14 open-water pond features (40.80 acres).

Wetland delineation data forms for the Arid West Supplement have been filled out for the areas that had potential wetland characteristics in accordance with USACE delineation procedures for the routine method. The data forms are included in Appendix B, Site Wetland Delineation Forms.

The jurisdictional status of delineated aquatic resources is subject to determination by USACE.

## 8.0 Additional Information

The following supporting information is included in the appendices to this technical memorandum:

- Appendix A – Aquatic Resource Delineation Map Series
- Appendix B – Wetland Delineation Forms
- Appendix C – On-site Representative Photographs
- Appendix D – List of Plant Species Observed
- Appendix E – NWI Map Series
- Appendix F – NRCS Soil Map Series
- Appendix G – NRCS Custom Soil Resource Report for West Davis Corridor
- Appendix H – Field Data Points

## 9.0 References

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**Appendix A**  
**Aquatic Resource Delineation Map Series**
















**WEST DAVIS**  
CORRIDOR


 Delineation Survey Area


 Emergent Marsh


 Wet Meadow


 Playa


 Waterway / Open Water


 Constructed Feature


 Wetland Soil Pit


 Non-wetland Soil Pit

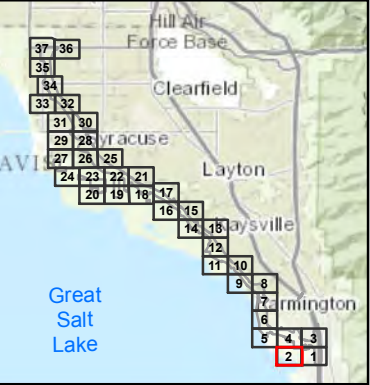
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 Waterway OHWM Transects

 Agricultural/Roadside Ditch

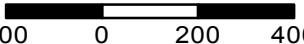
 Contour

 Wetlands Outside Survey





1 inch = 400 feet



Feet

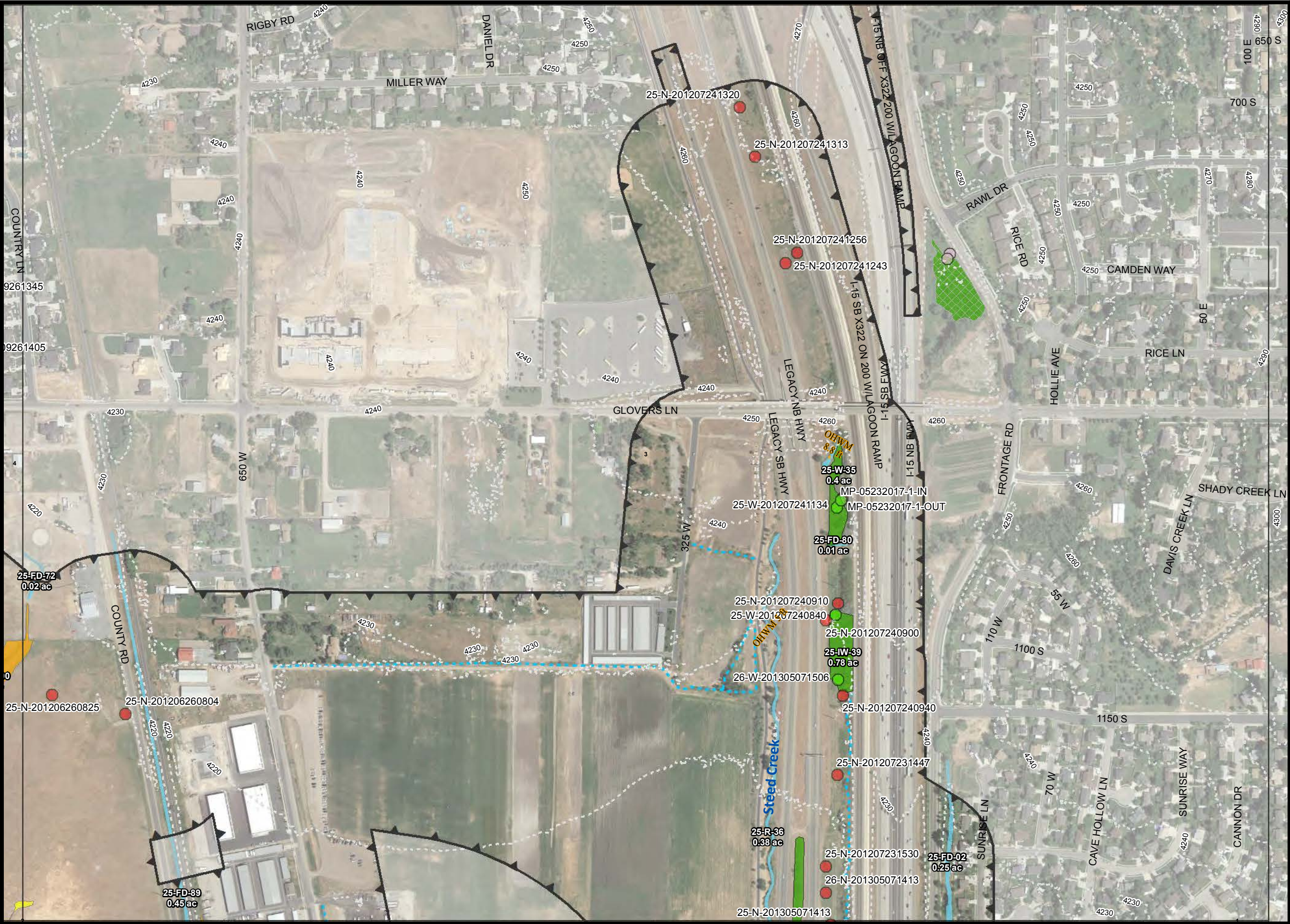
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**Aquatic Resource  
Delineation Maps**

July 2017













**South Region**  
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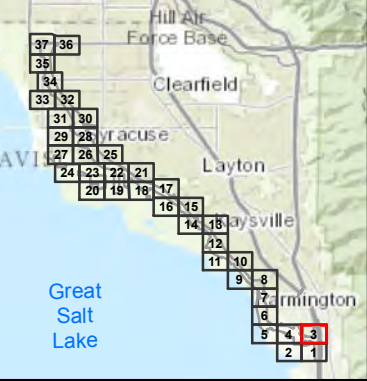







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CORRIDOR**

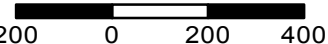
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-  Wet Meadow
-  Playa
-  Waterway / Open Water
-  Constructed Feature
-  Wetland Soil Pit
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-  Soil Pit Outside Survey
-  Waterway OHWM Transects
-  Agricultural/Roadside Ditch
-  Contour
-  Wetlands Outside Survey



Great Salt Lake



1 inch = 400 feet



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Feet

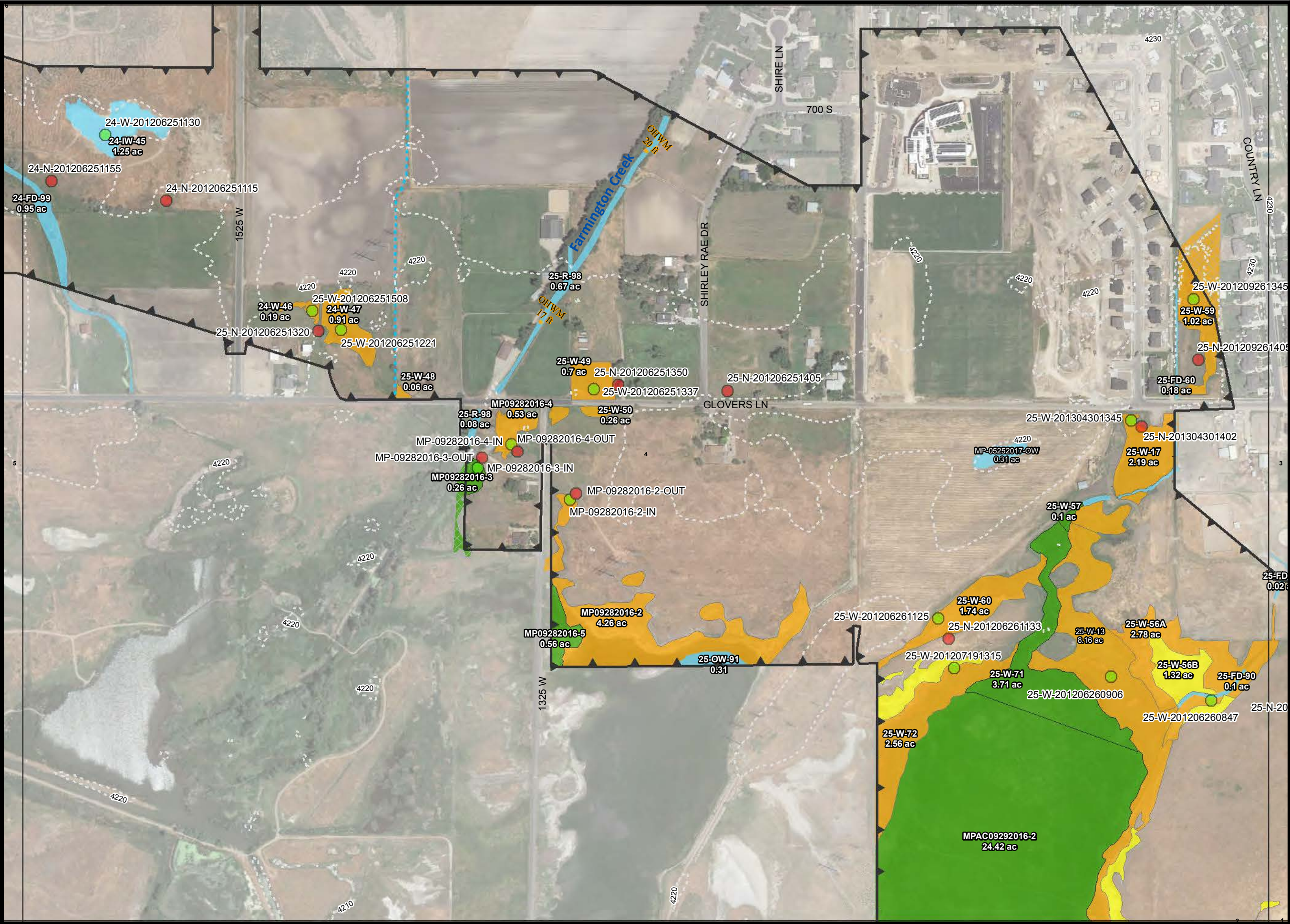
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**Aquatic Resource  
Delineation Maps**

July 2017

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**WEST DAVIS  
CORRIDOR**

- Delineation Survey Area
- Emergent Marsh
- Wet Meadow
- Playa
- Waterway / Open Water
- Constructed Feature
- Wetland Soil Pit
- Non-wetland Soil Pit
- Soil Pit Outside Survey
- Waterway OHWM Transects
- Agricultural/Roadside Ditch
- Contour
- Wetlands Outside Survey



Great Salt Lake



1 inch = 400 feet



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Feet

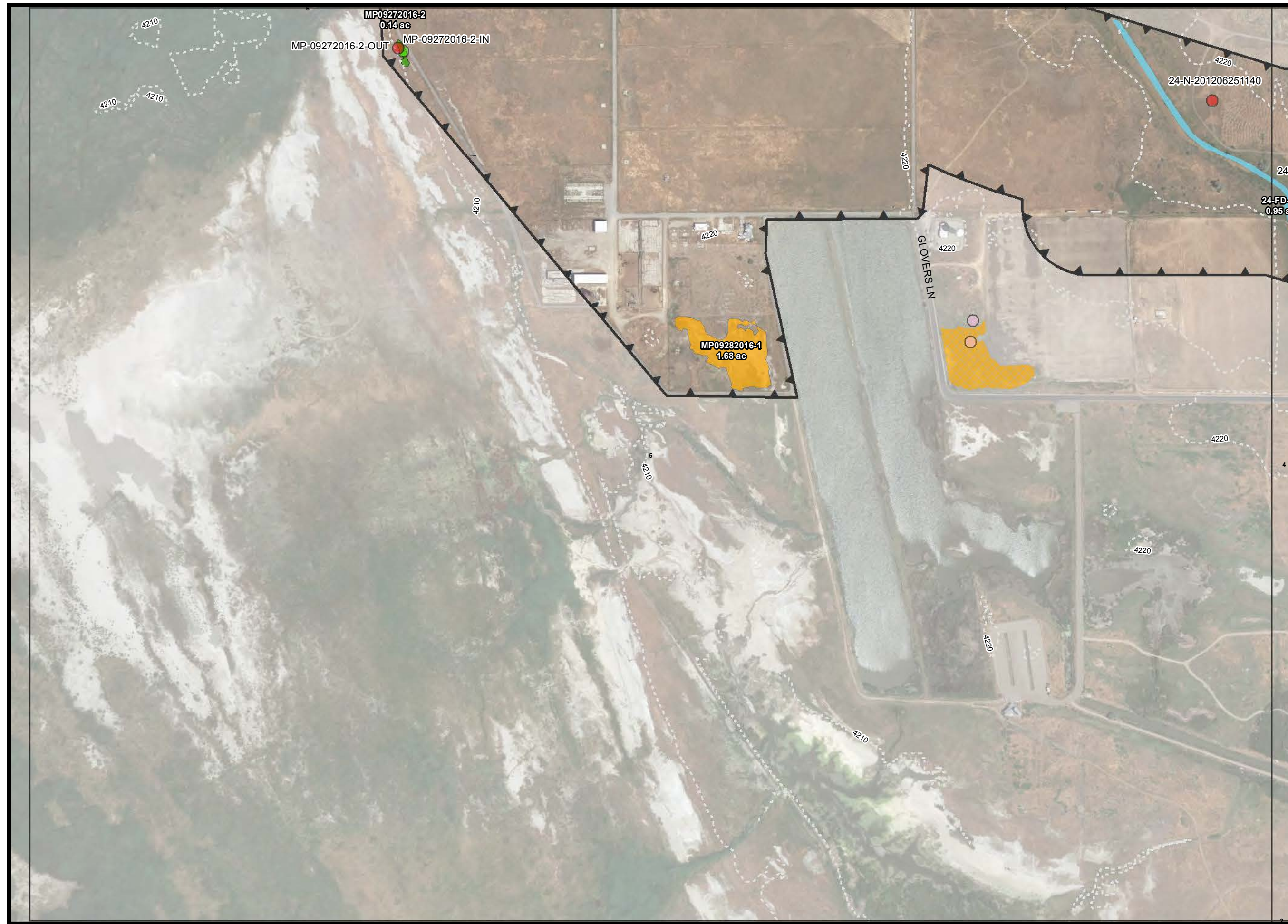
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**Aquatic Resource  
Delineation Maps**

July 2017

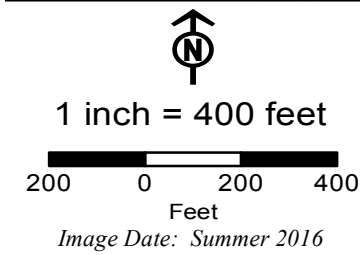
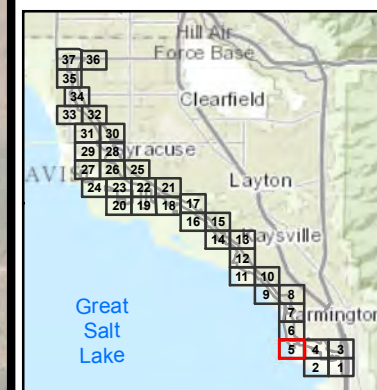
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## WEST DAVIS CORRIDOR

- Delineation Survey Area
- Emergent Marsh
- Wet Meadow
- Playa
- Waterway / Open Water
- Constructed Feature
- Wetland Soil Pit
- Non-wetland Soil Pit
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- Agricultural/Roadside Ditch
- Contour
- Wetlands Outside Survey

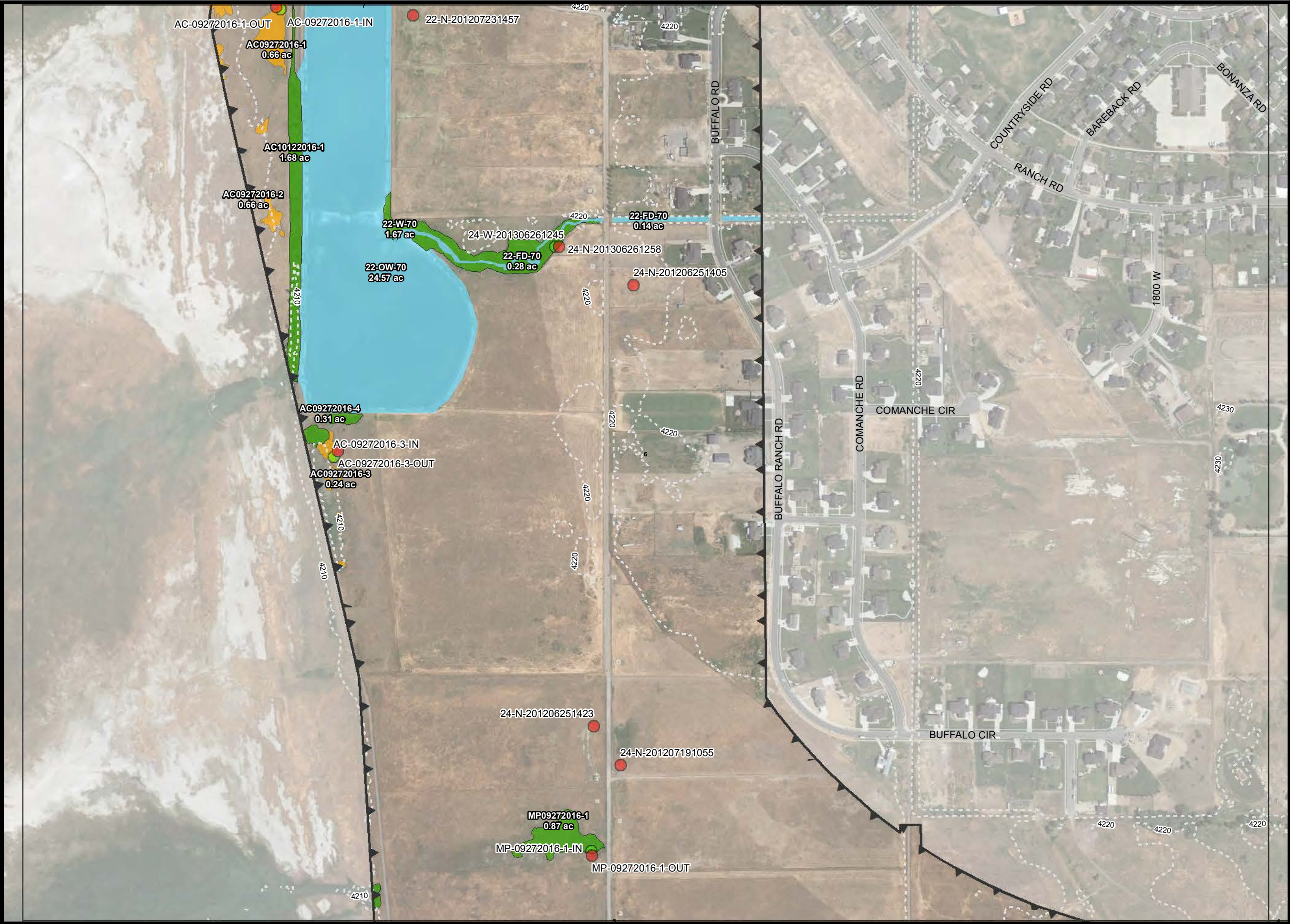



### Aquatic Resource Delineation Maps

July 2017














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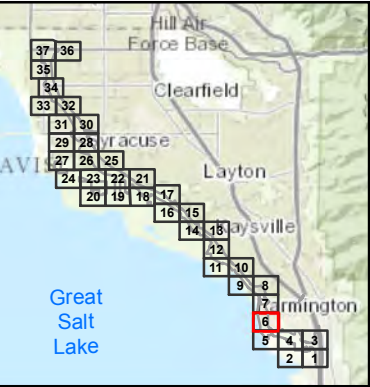







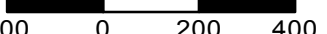
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CORRIDOR

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-  Playa
-  Waterway / Open Water
-  Constructed Feature
-  Wetland Soil Pit
-  Non-wetland Soil Pit
-  Soil Pit Outside Survey
-  Waterway OHWM Transects
-  Agricultural/Roadside Ditch
-  Contour
-  Wetlands Outside Survey





1 inch = 400 feet



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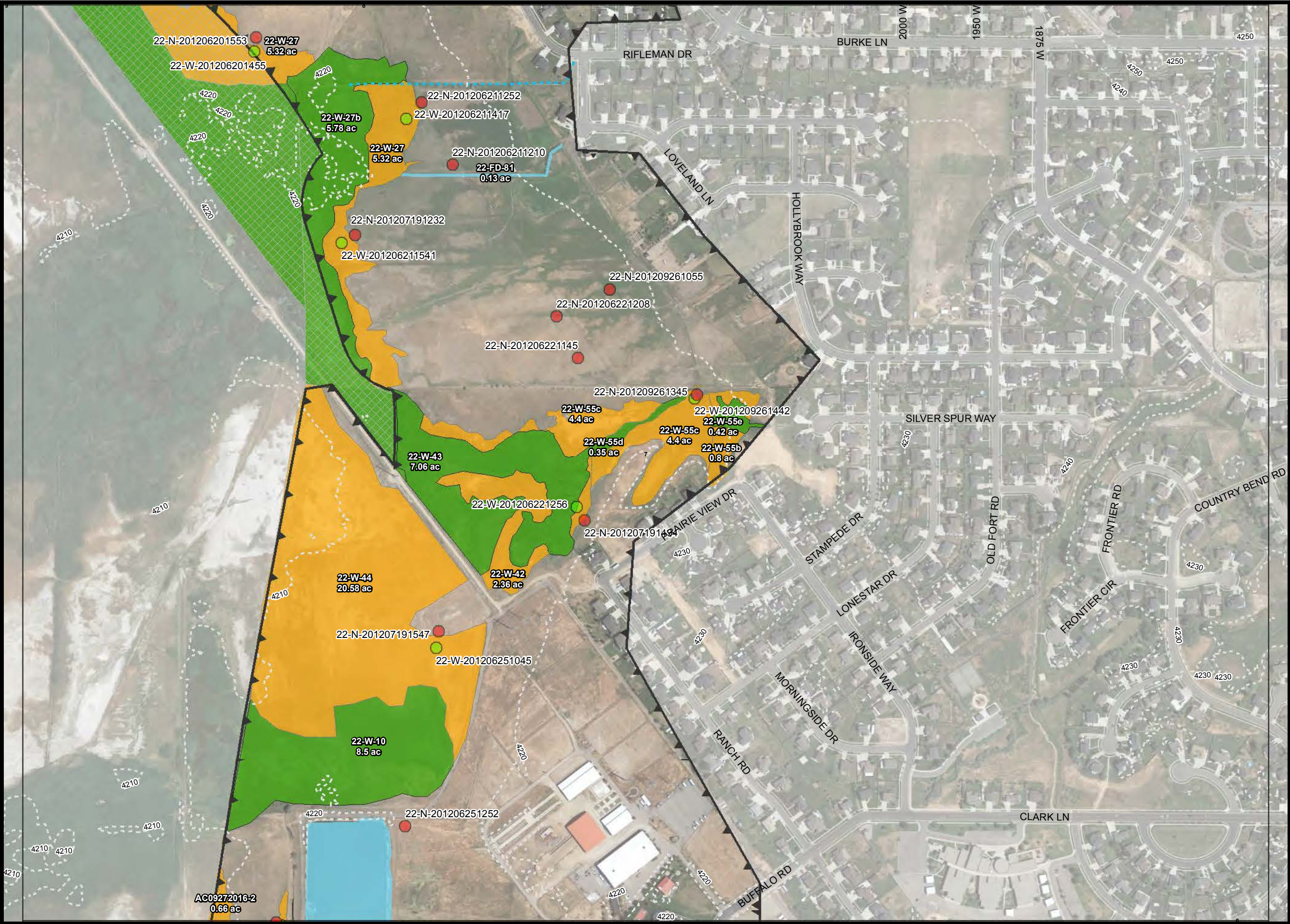
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**Aquatic Resource  
Delineation Maps**

July 2017










**South Region**  
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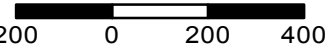
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-  Waterway / Open Water
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-  Waterway OHWM Transects
-  Agricultural/Roadside Ditch
-  Contour
-  Wetlands Outside Survey



Great Salt Lake



1 inch = 400 feet



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Feet

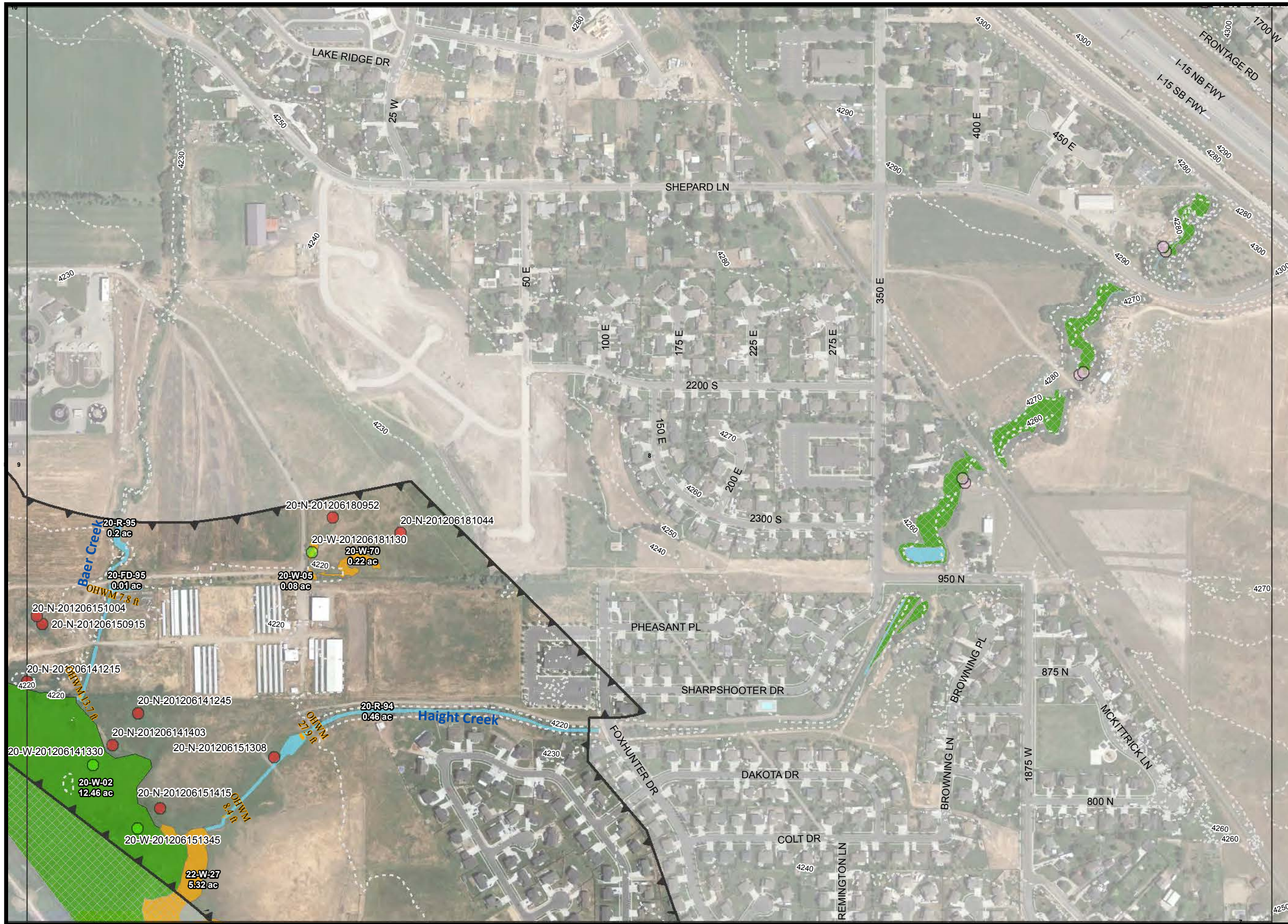
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Delineation Maps**

July 2017














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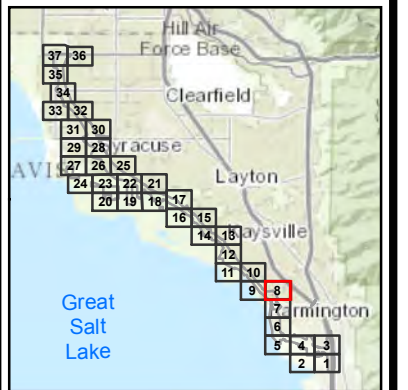







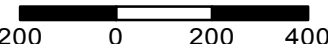
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CORRIDOR

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-  Wet Meadow
-  Playa
-  Waterway / Open Water
-  Constructed Feature
-  Wetland Soil Pit
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-  Soil Pit Outside Survey
-  Waterway OHWM Transects
-  Agricultural/Roadside Ditch
-  Contour
-  Wetlands Outside Survey





1 inch = 400 feet



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Feet

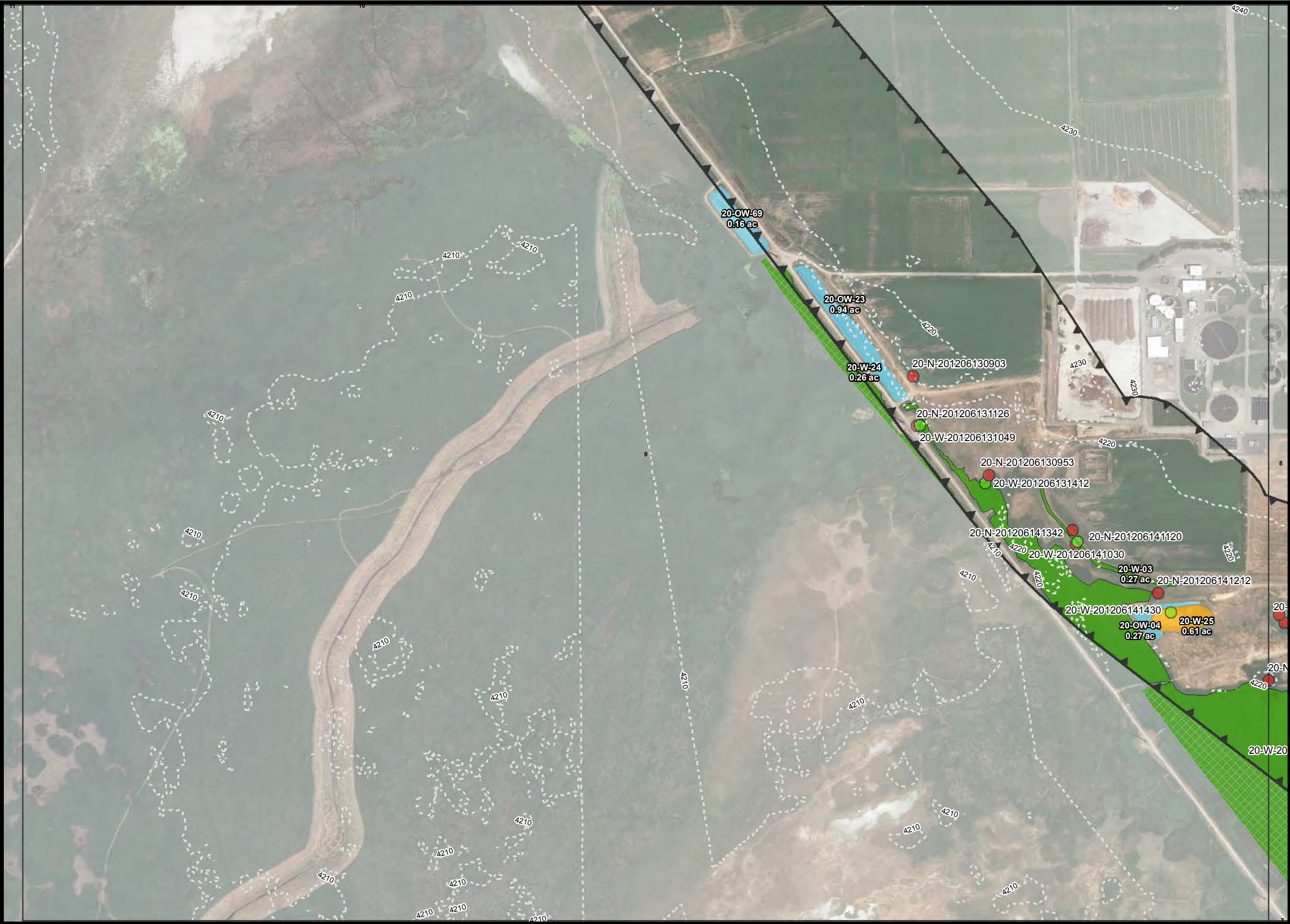
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Delineation Maps**

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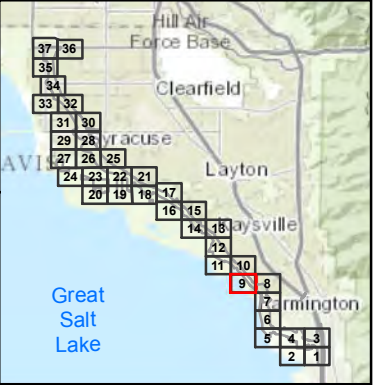







**WEST DAVIS**  
CORRIDOR

- Delineation Survey Area
- Emergent Marsh
- Wet Meadow
- Playa
- Waterway / Open Water
- Constructed Feature
- Wetland Soil Pit
- Non-wetland Soil Pit
- Soil Pit Outside Survey
- Waterway OHWM Transects
- Agricultural/Roadside Ditch
- Contour
- Wetlands Outside Survey



Great Salt Lake



1 inch = 400 feet



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Feet

Image Date: Summer 2016

**Aquatic Resource  
Delineation Maps**

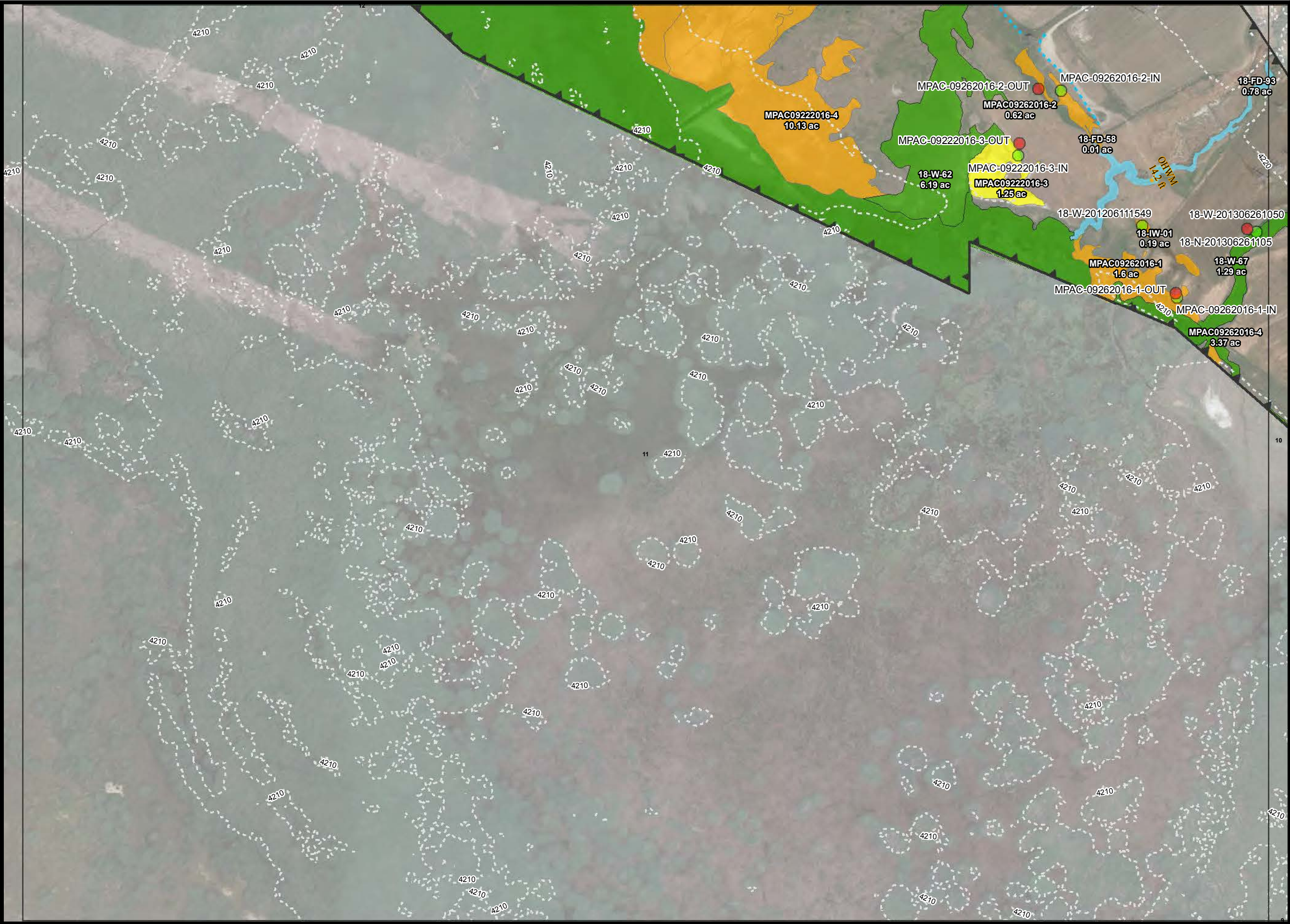
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**WEST DAVIS**  
CORRIDOR

 Delineation Survey Area


 Emergent Marsh

 Wet Meadow


 Playa


 Waterway / Open Water


 Constructed Feature

 Wetland Soil Pit

 Non-wetland Soil Pit

 Soil Pit Outside Survey

 Waterway OHWM Transects


 Agricultural/Roadside Ditch

 Contour

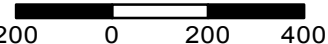
 Wetlands Outside Survey



Great Salt Lake



1 inch = 400 feet



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Feet

Image Date: Summer 2016

**Aquatic Resource  
Delineation Maps**

July 2017


**South Region**  
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**WEST DAVIS  
CORRIDOR**

-  Delineation Survey Area
-  Emergent Marsh
-  Wet Meadow
-  Playa
-  Waterway / Open Water
-  Constructed Feature
-  Wetland Soil Pit
-  Non-wetland Soil Pit
-  Soil Pit Outside Survey
-  Waterway OHWM Transects
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-  Contour
-  Wetlands Outside Survey



Great Salt Lake



1 inch = 400 feet



200 0 200 400  
Feet

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Delineation Maps**

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**South Region**  
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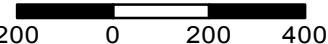
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-  Wetlands Outside Survey



Great Salt Lake



1 inch = 400 feet



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Feet

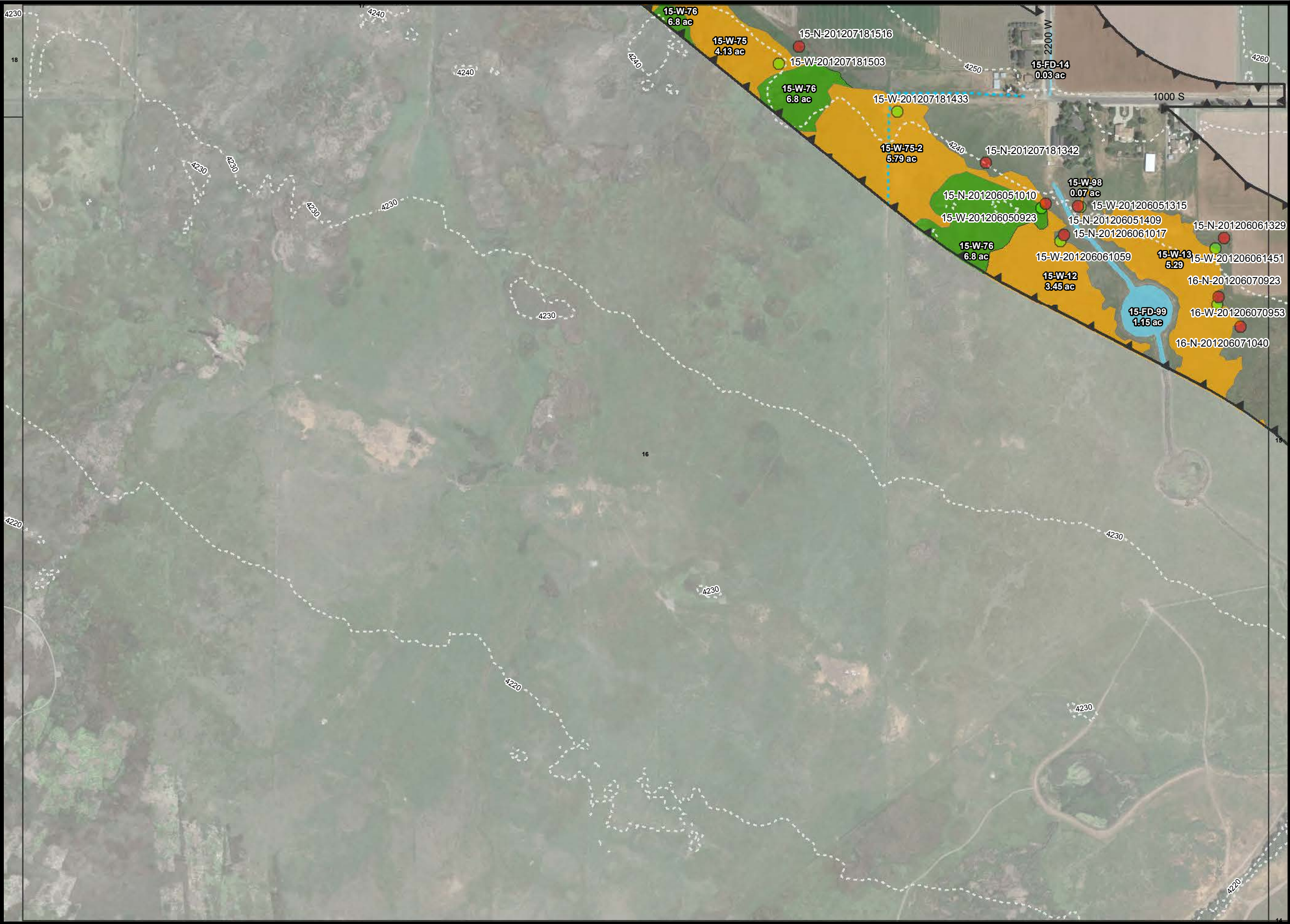
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**Aquatic Resource  
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July 2017












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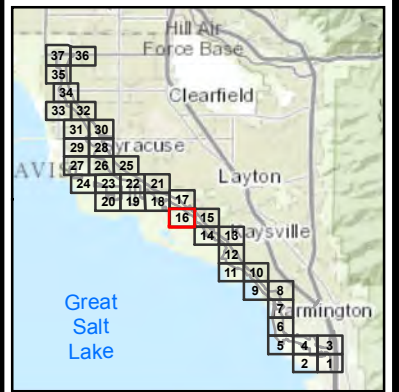




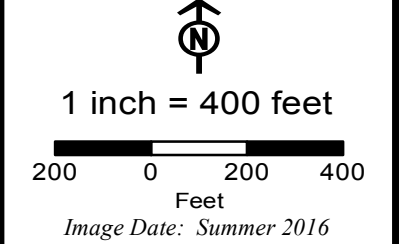


**WEST DAVIS  
CORRIDOR**

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The inset map shows the West Davis Corridor area, including Hill Air Force Base, Clearfield, Layton, and the Great Salt Lake. A red box indicates the location of the study area.



1 inch = 400 feet

200 0 200 400 Feet

Image Date: Summer 2016

**Aquatic Resource  
Delineation Maps**

July 2017

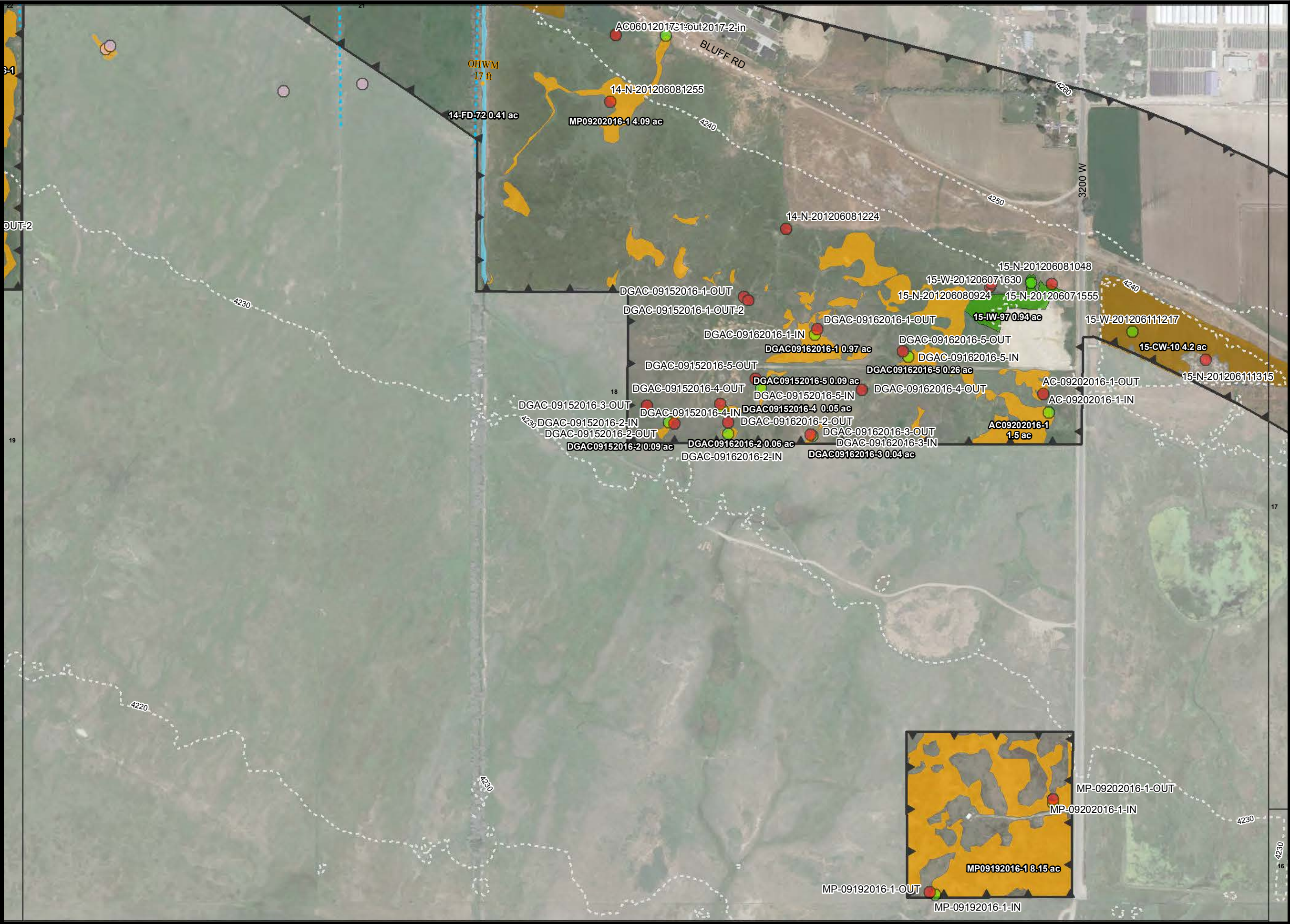
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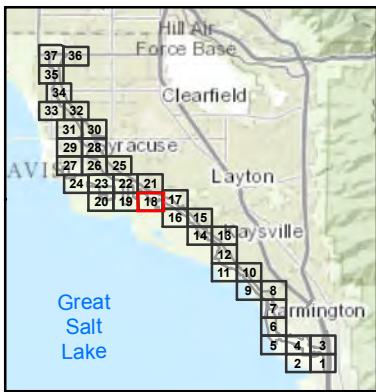






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CORRIDOR

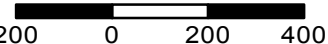
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- Wetlands Outside Survey



Great Salt Lake



1 inch = 400 feet



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Feet

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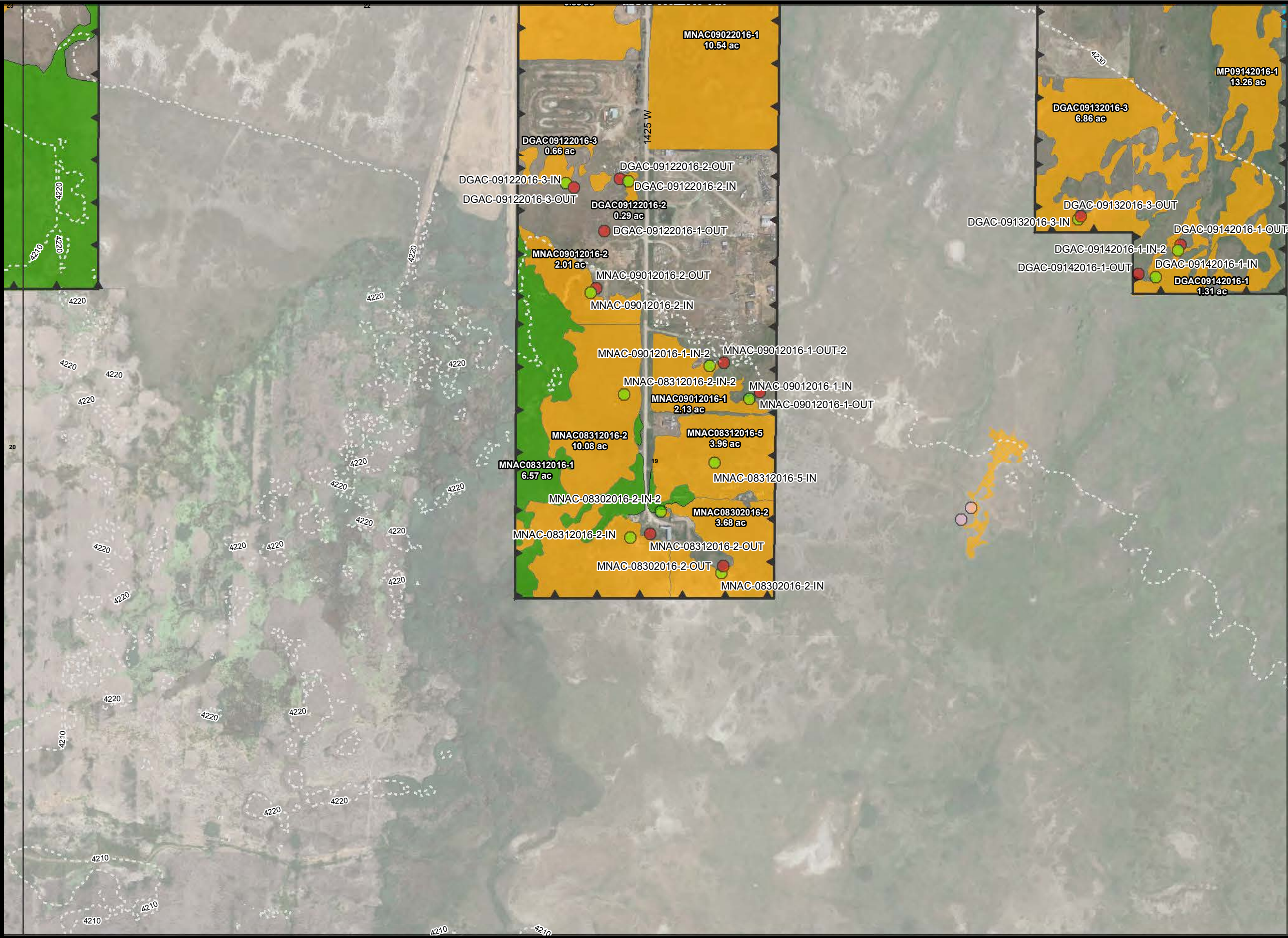
**Aquatic Resource  
Delineation Maps**


July 2017

**Central Region**

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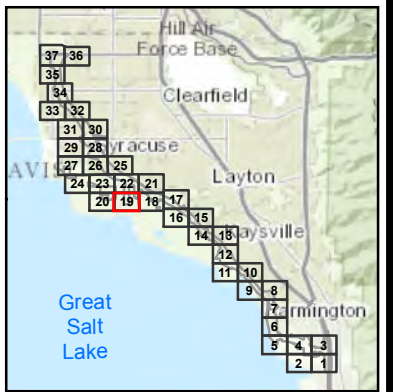







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CORRIDOR

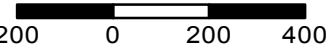
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Great Salt Lake



1 inch = 400 feet



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Feet

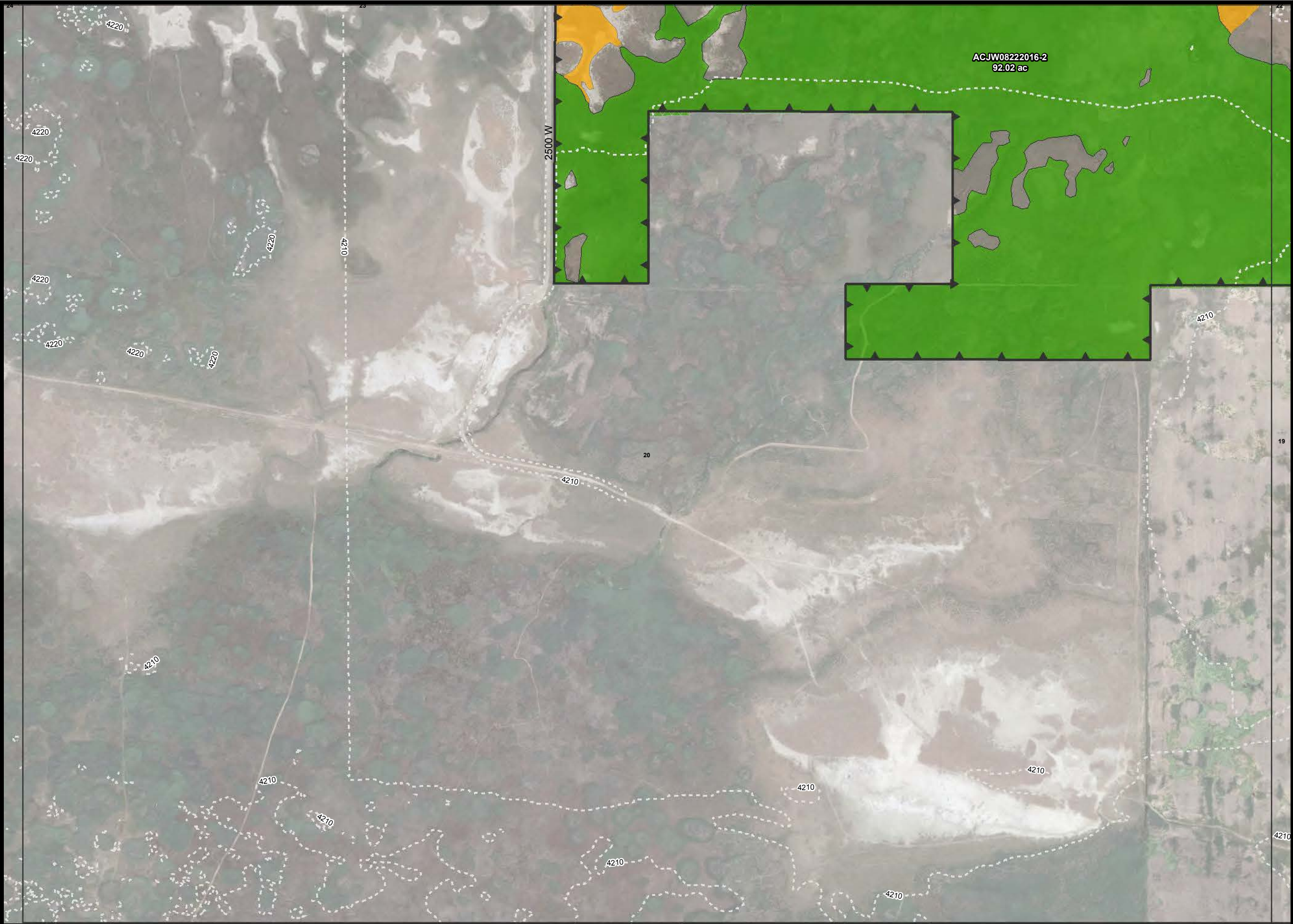
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**Aquatic Resource  
Delineation Maps**

July 2017

**Central Region**  
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**WEST DAVIS**  
CORRIDOR

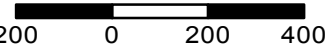
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Great Salt Lake



1 inch = 400 feet



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Feet

Image Date: Summer 2016


**Aquatic Resource  
Delineation Maps**

July 2017














**Central Region**  
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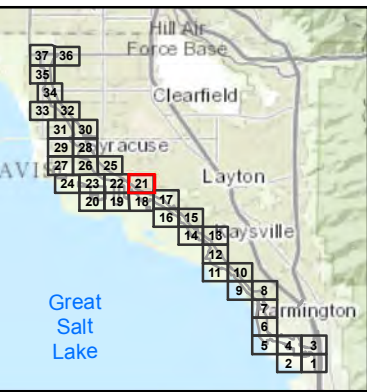







**WEST DAVIS  
CORRIDOR**

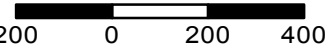
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-  Contour
-  Wetlands Outside Survey



Great Salt Lake



1 inch = 400 feet



200 0 200 400  
Feet

Image Date: Summer 2016

**Aquatic Resource  
Delineation Maps**

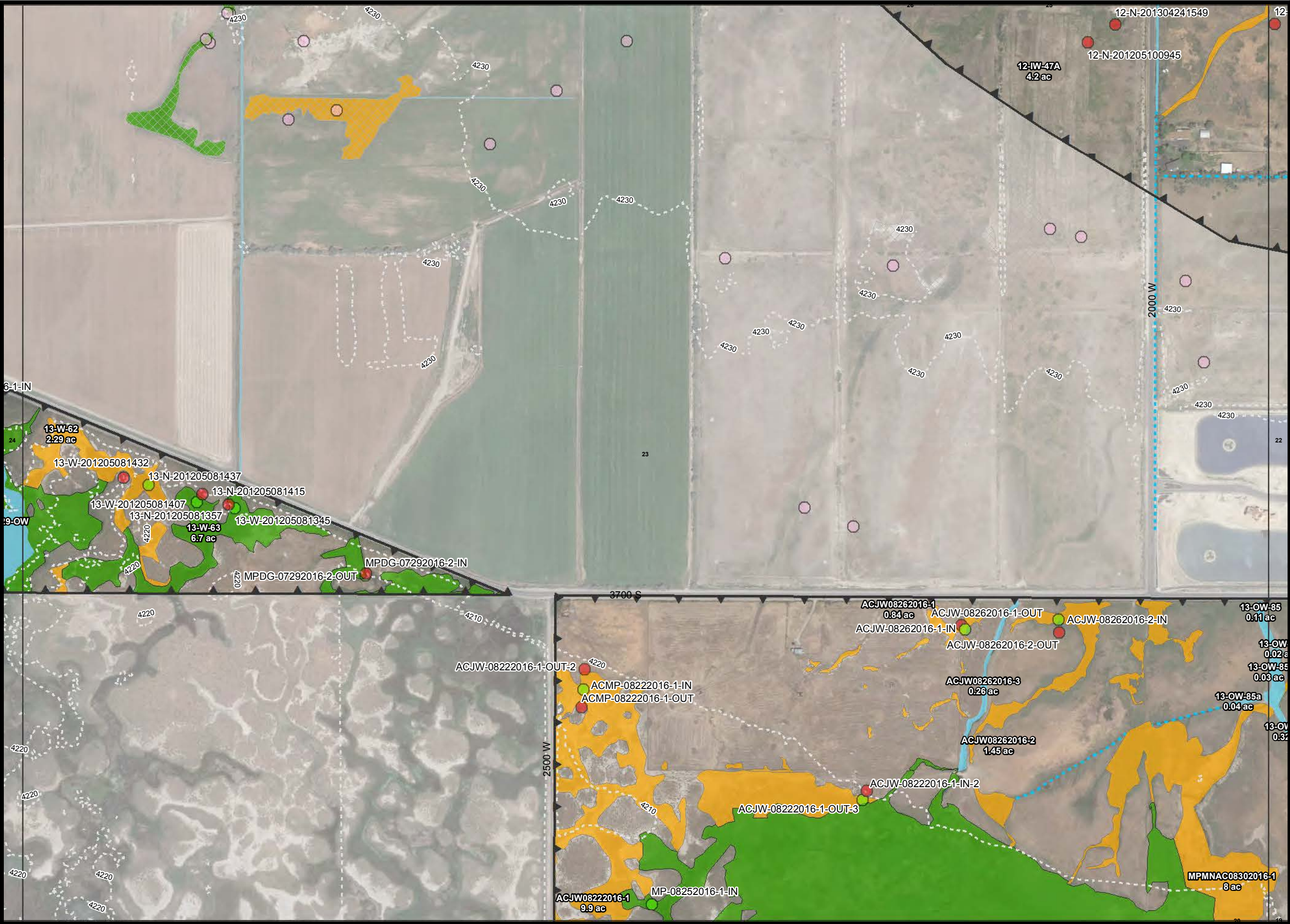
July 2017


**Central Region**  
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**WEST DAVIS  
CORRIDOR**

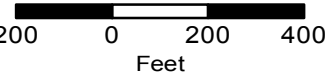
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-  Emergent Marsh
-  Wet Meadow
-  Playa
-  Waterway / Open Water
-  Constructed Feature
-  Wetland Soil Pit
-  Non-wetland Soil Pit
-  Soil Pit Outside Survey
-  Waterway OHWM Transects
-  Agricultural/Roadside Ditch
-  Contour
-  Wetlands Outside Survey



Great Salt Lake



1 inch = 400 feet



200 0 200 400  
Feet

Image Date: Summer 2016

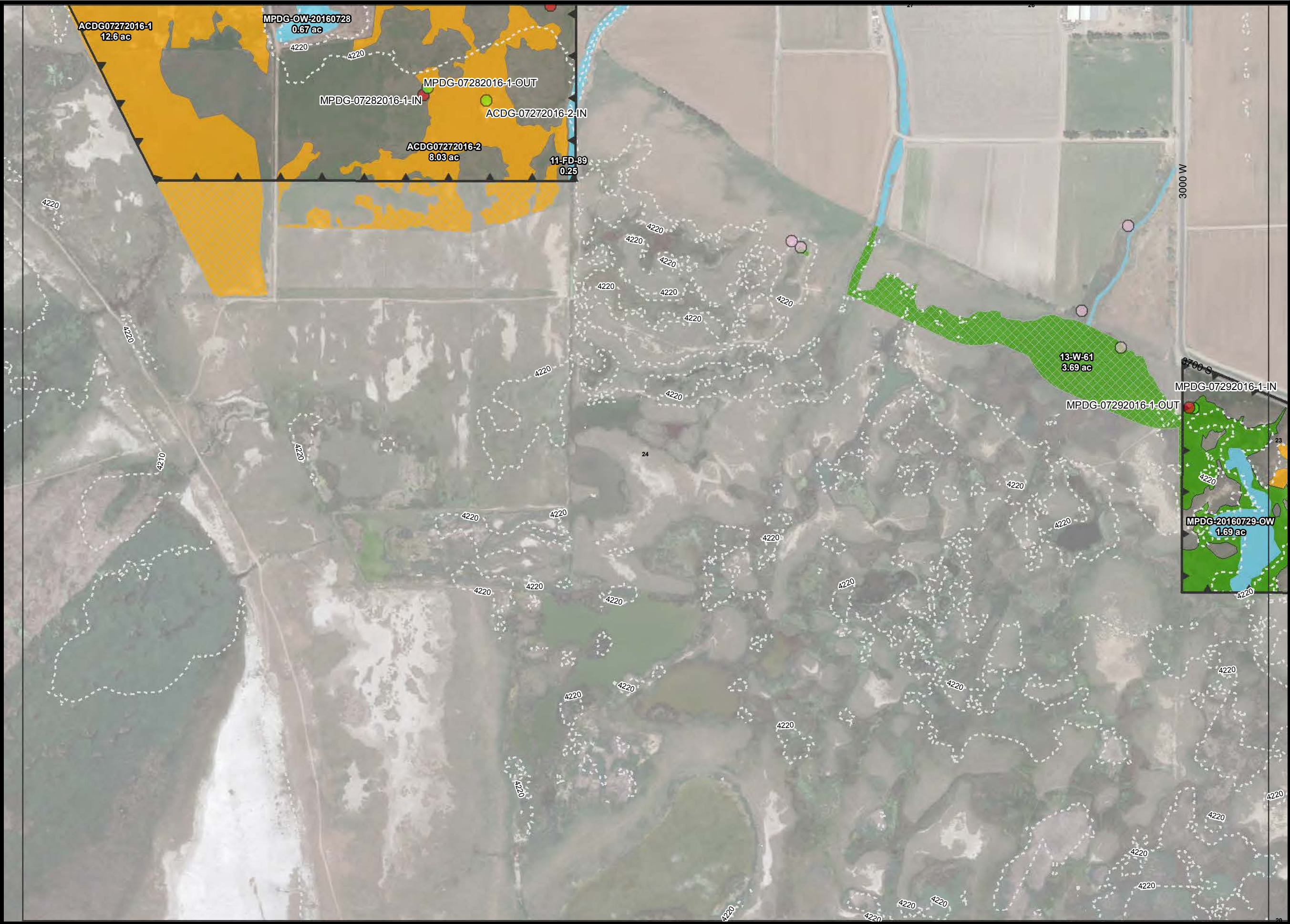
**Aquatic Resource  
Delineation Maps**


July 2017

**Central Region**














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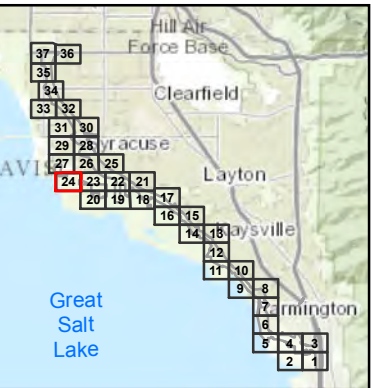







**WEST DAVIS**  
CORRIDOR

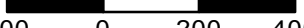
-  Delineation Survey Area
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-  Waterway OHWM Transects
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-  Wetlands Outside Survey



Great Salt Lake



1 inch = 400 feet



200 0 200 400  
Feet

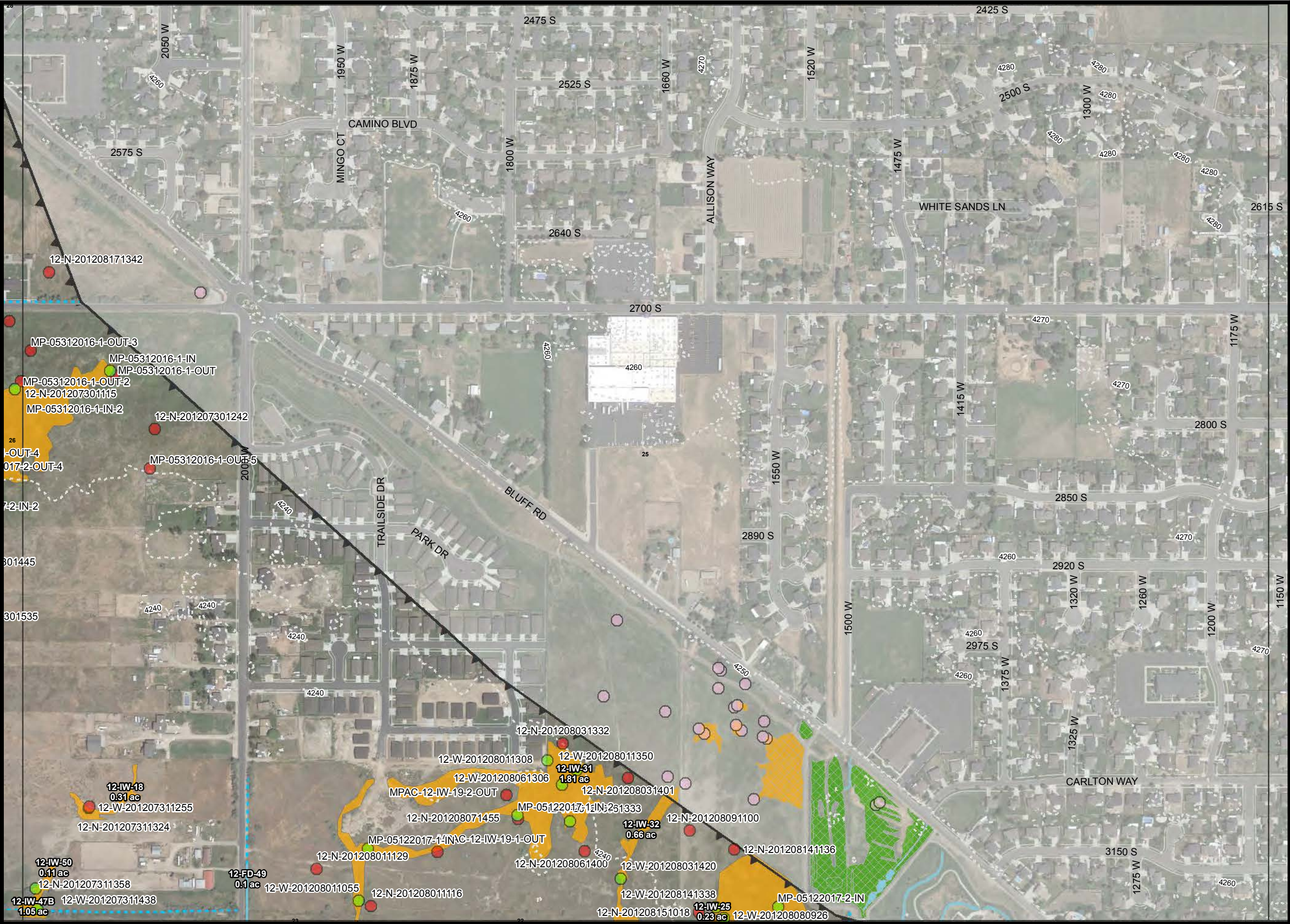
Image Date: Summer 2016

**Aquatic Resource  
Delineation Maps**

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**Central Region**  
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**WEST DAVIS  
CORRIDOR**

-  Delineation Survey Area
-  Emergent Marsh
-  Wet Meadow
-  Playa
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-  Constructed Feature
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-  Waterway OHWM Transects
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-  Wetlands Outside Survey



Great Salt Lake



1 inch = 400 feet



200 0 200 400  
Feet

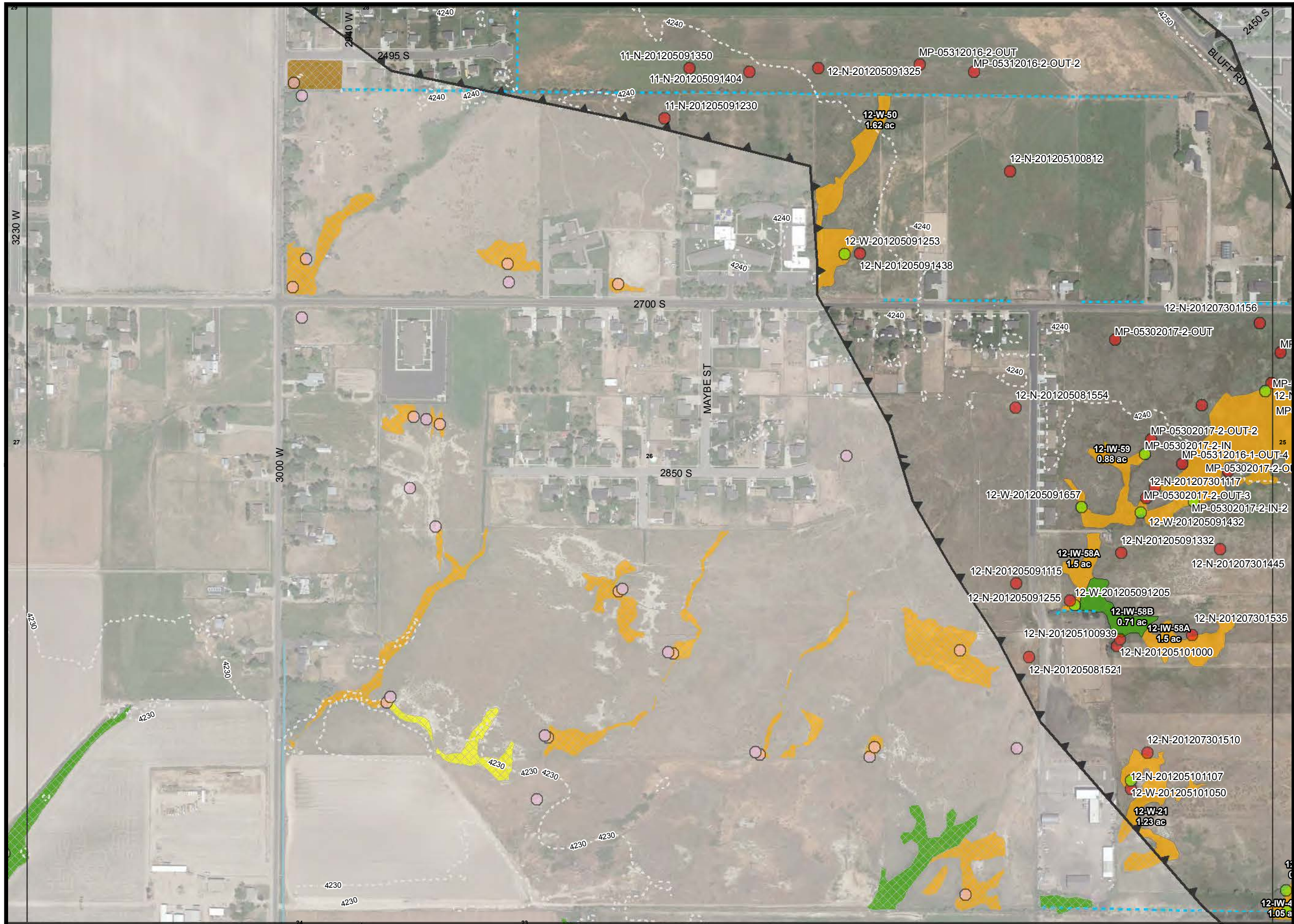
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**Aquatic Resource  
Delineation Maps**

July 2017

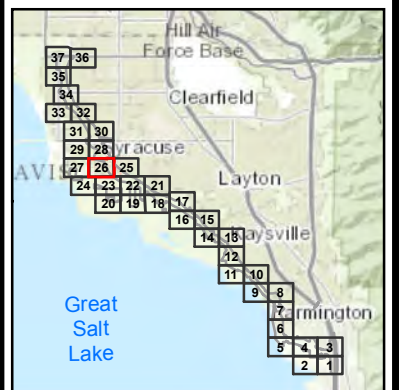
**Central Region**  
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## WEST DAVIS CORRIDOR

- Delineation Survey Area
- Emergent Marsh
- Wet Meadow
- Playa
- Waterway / Open Water
- Constructed Feature
- Wetland Soil Pit
- Non-wetland Soil Pit
- Soil Pit Outside Survey
- Waterway OHWM Transects
- Agricultural/Roadside Ditch
- Contour
- Wetlands Outside Survey



1 inch = 400 feet

200 0 200 400  
Feet

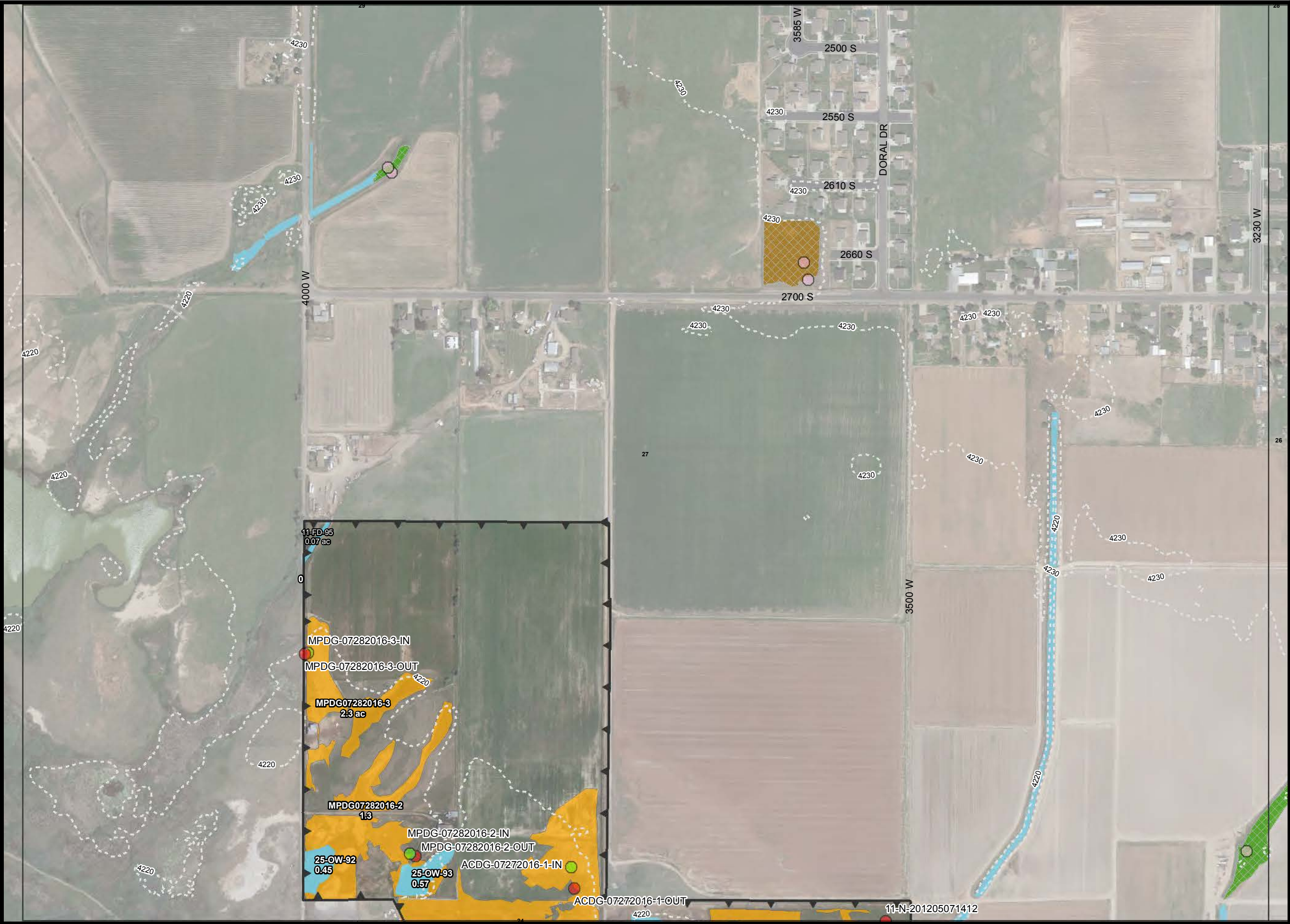
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### Aquatic Resource Delineation Maps

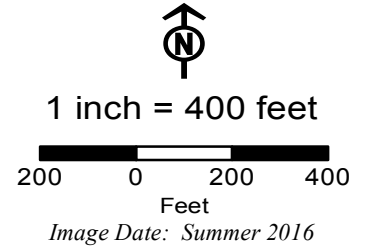
July 2017

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- Delineation Survey Area
- Emergent Marsh
- Wet Meadow
- Playa
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- Constructed Feature
- Wetland Soil Pit
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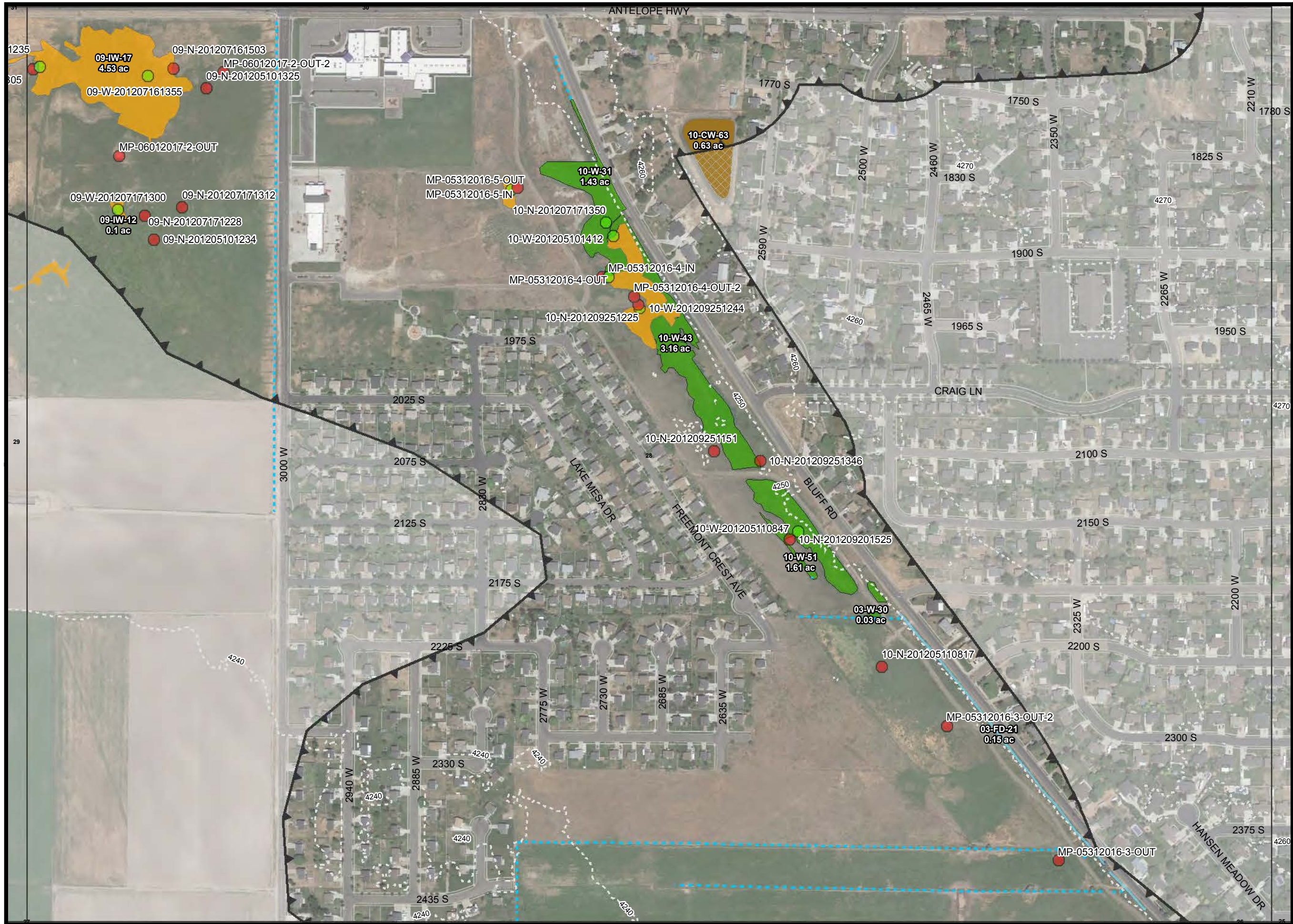
**Aquatic Resource Delineation Maps**

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**Central Region**

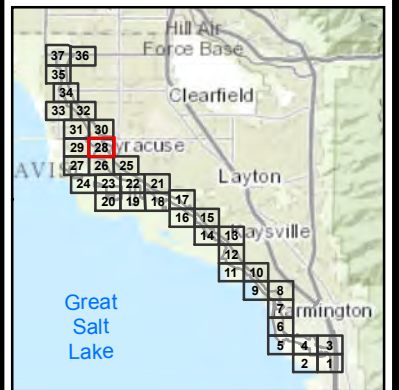
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## WEST DAVIS CORRIDOR

- Delineation Survey Area
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- Wet Meadow
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1 inch = 400 feet

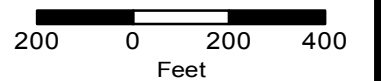


Image Date: Summer 2016


### Aquatic Resource Delineation Maps

July 2017


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**WEST DAVIS**  
CORRIDOR


 Delineation Survey Area


 Emergent Marsh


 Wet Meadow


 Playa


 Waterway / Open Water


 Constructed Feature


 Wetland Soil Pit


 Non-wetland Soil Pit


 Soil Pit Outside Survey

 Waterway OHWM Transects


 Agricultural/Roadside Ditch

 Contour

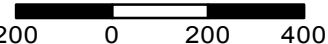
 Wetlands Outside Survey



Great Salt Lake



1 inch = 400 feet



200 0 200 400  
Feet

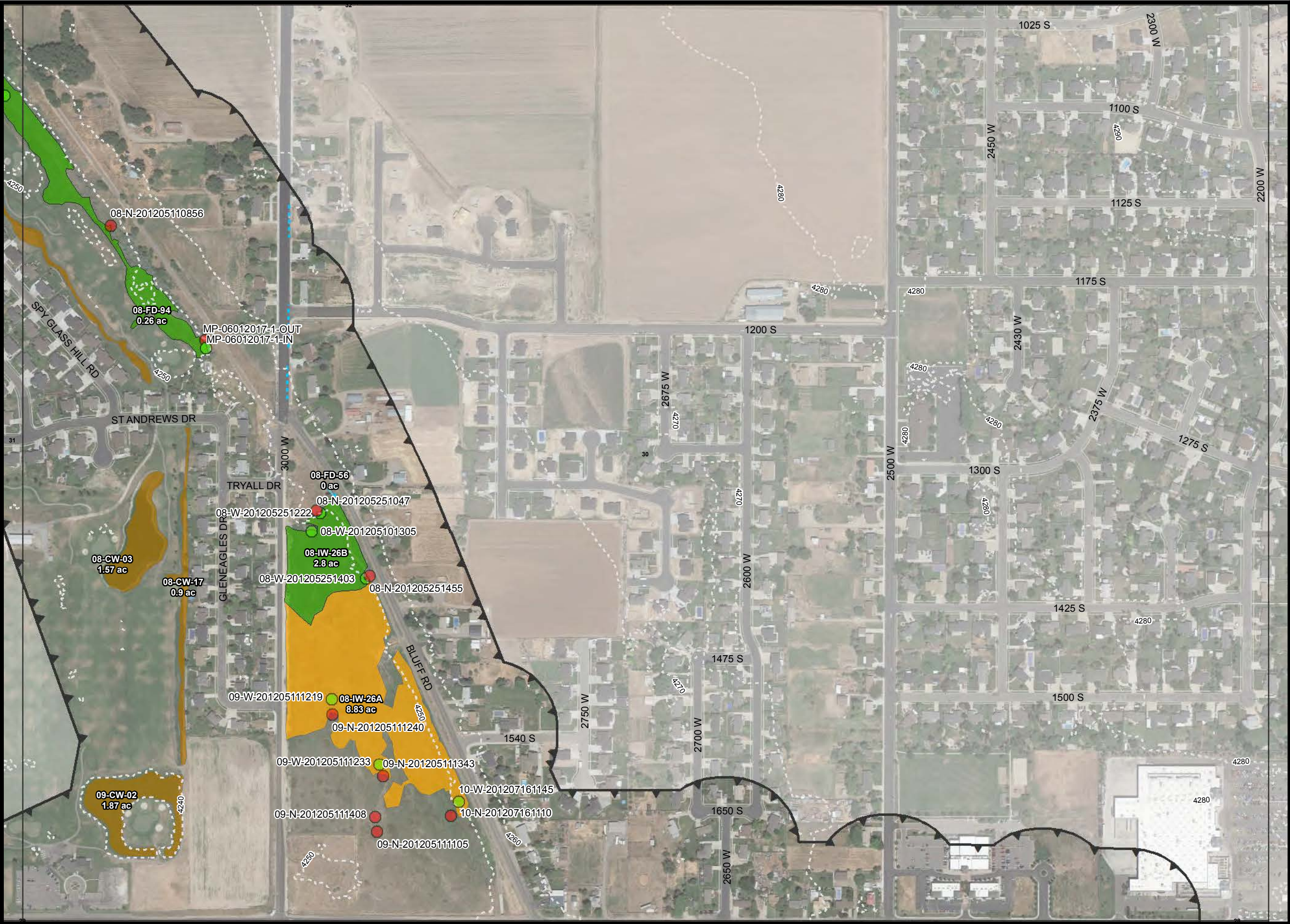
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**Aquatic Resource  
Delineation Maps**

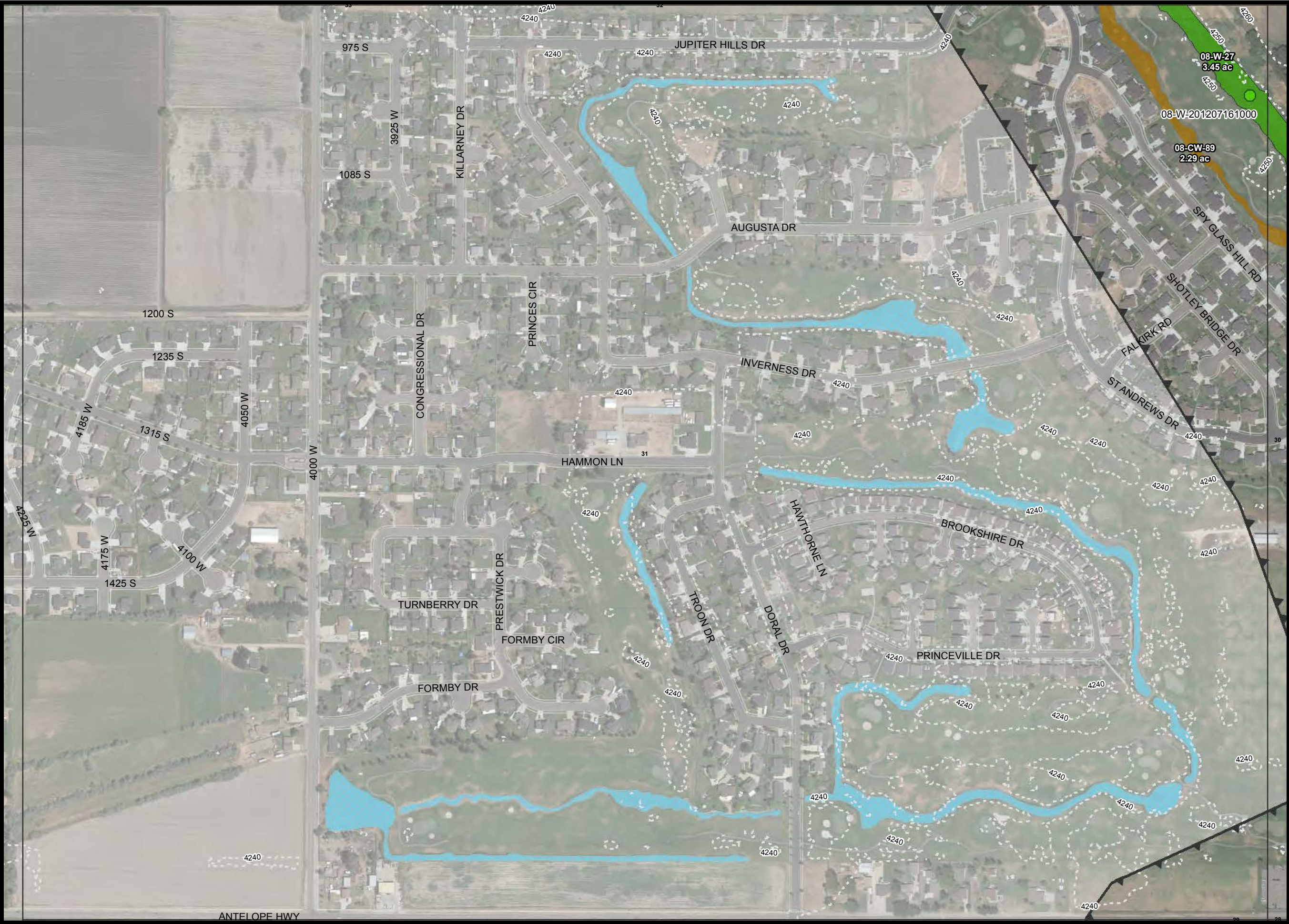
July 2017


**North Region**  
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**WEST DAVIS**  
CORRIDOR

-  Delineation Survey Area
-  Emergent Marsh
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-  Wetlands Outside Survey



Great Salt Lake



1 inch = 400 feet



200 0 200 400  
Feet

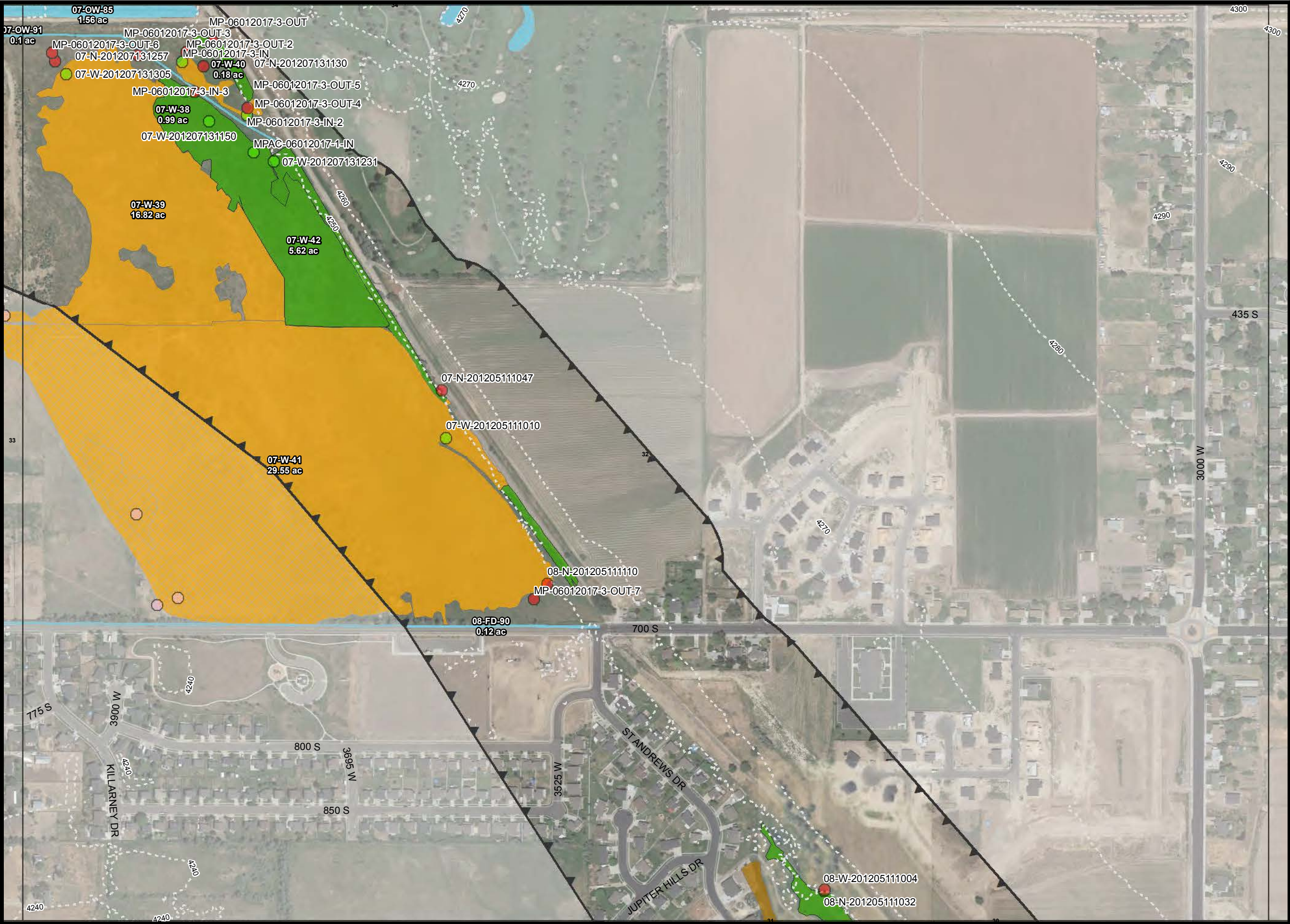
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**Aquatic Resource  
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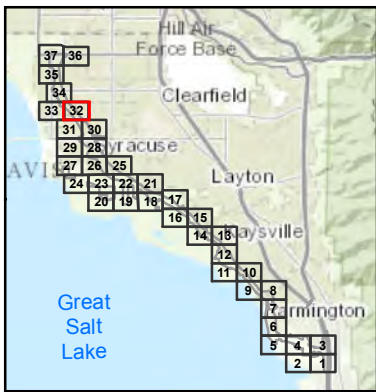







**WEST DAVIS  
CORRIDOR**

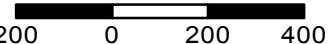
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-  Contour
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Great Salt Lake



1 inch = 400 feet



200 0 200 400  
Feet

Image Date: Summer 2016

**Aquatic Resource  
Delineation Maps**

July 2017

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Delineation Survey Area

Emergent Marsh

Wet Meadow

Playa

Waterway / Open Water

Constructed Feature

Wetland Soil Pit

Non-wetland Soil Pit

Soil Pit Outside Survey

Waterway OHWM Transects

Agricultural/Roadside Ditch

Contour

Wetlands Outside Survey

1 inch = 400 feet

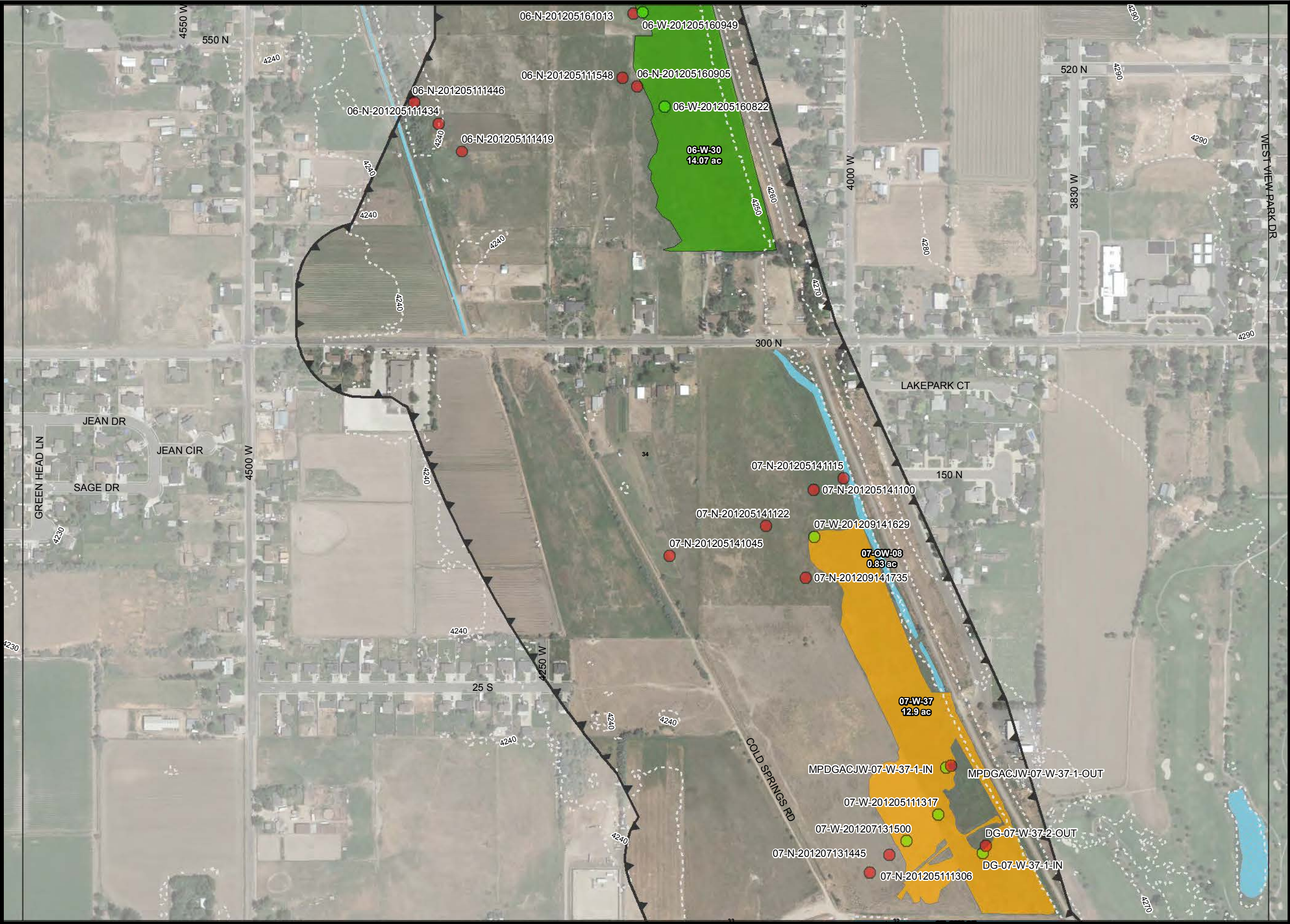
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Aquatic Resource  
Delineation Maps

July 2017














North Region  
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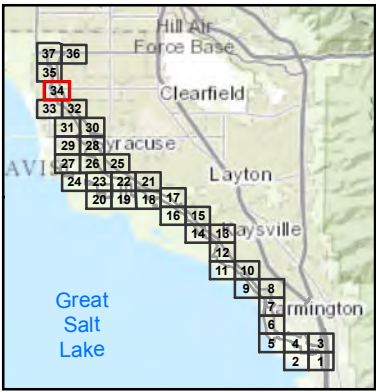







**WEST DAVIS**  
CORRIDOR


-  Delineation Survey Area
-  Emergent Marsh
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Great Salt Lake



1 inch = 400 feet



200 0 200 400  
Feet

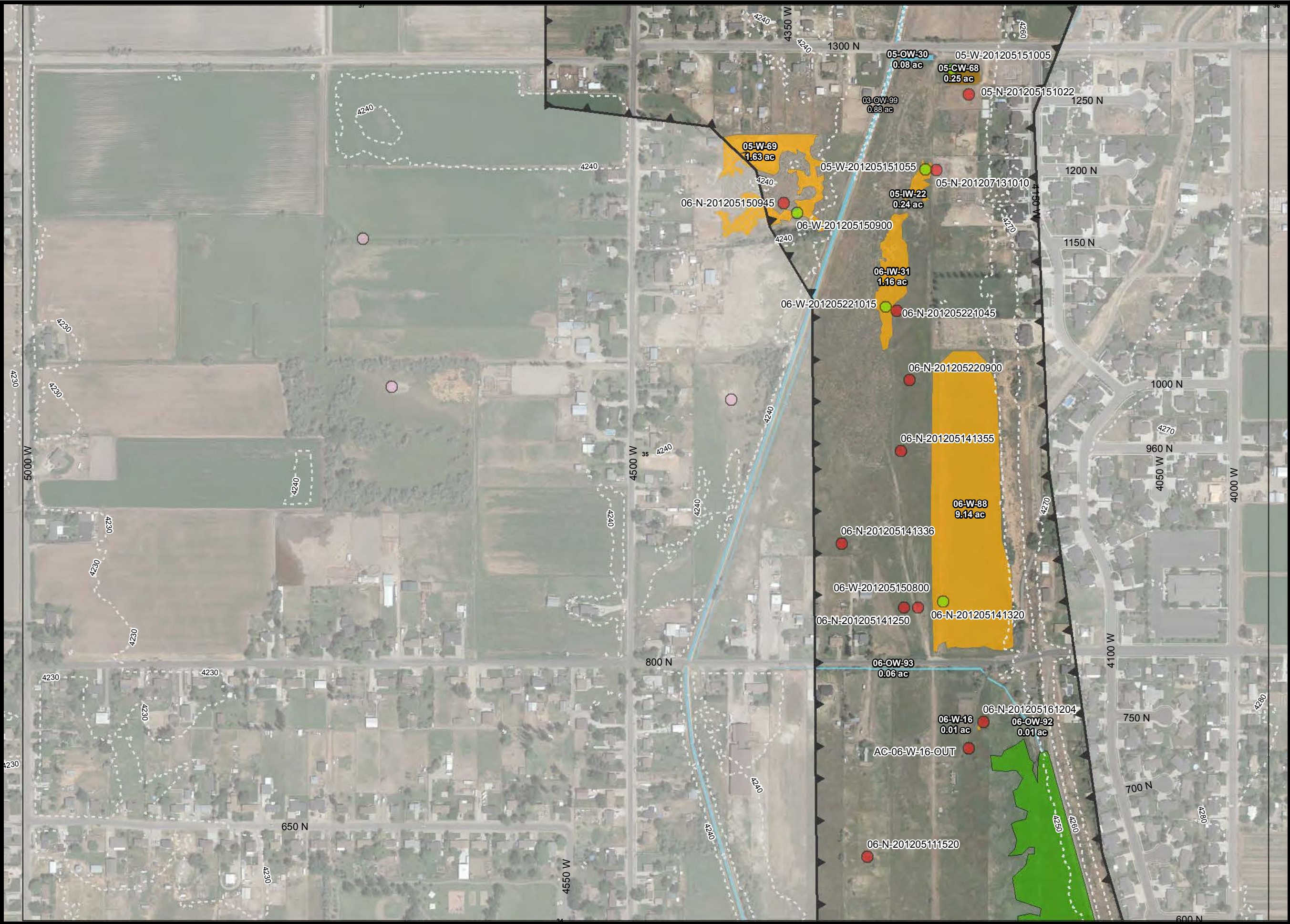
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**Aquatic Resource  
Delineation Maps**

July 2017














**North Region**  
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**WEST DAVIS  
CORRIDOR**

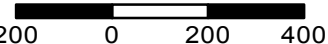
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-  Agricultural/Roadside Ditch
-  Contour
-  Wetlands Outside Survey



Great Salt Lake



1 inch = 400 feet



200 0 200 400  
Feet

Image Date: Summer 2016

**Aquatic Resource  
Delineation Maps**

July 2017

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## WEST DAVIS CORRIDOR

- Delineation Survey Area
- Emergent Marsh
- Wet Meadow
- Playa
- Waterway / Open Water
- Constructed Feature
- Wetland Soil Pit
- Non-wetland Soil Pit
- Soil Pit Outside Survey
- Waterway OHWM Transects
- Agricultural/Roadside Ditch
- Contour
- Wetlands Outside Survey

Great Salt Lake

1 inch = 458 feet

200 0 200 400 Feet

Image Date: Summer 2016

### Aquatic Resource Delineation Maps

July 2017

**North Region**  
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**Appendix B**  
**Wetland Delineation Forms**

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: WDC Wetland Update City/County: Davis Sampling Date: 5/30/2017  
 Applicant/Owner: UDOT State: UT Sampling Point: MP-05302017-2-OUT-2  
 Investigators: M. Perkins Section, Township, Range: 16 4N 2W  
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): Concave Slope(%): 2  
 Subregion (LRR): D - Western Range and Lat: 41.073116 Long: -112.070099 Datum: WGS84  
 Soil Map Unit Name: Ford loam, shallow water table, 0 to 1 percent slopes NWI Classification: PEM1A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No      (If No, explain in Remarks)  
 Are Vegetation:      Soil      or Hydrology      significantly disturbed? Are "Normal Circumstances" present? Yes X No       
 Are Vegetation:      Soil      or Hydrology      naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <u>X</u>	No <u>    </u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>    </u> No <u>X</u>
Hydric Soil Present?	Yes <u>    </u>	No <u>X</u>	
Wetland Hydrology Present?	Yes <u>    </u>	No <u>X</u>	

Remarks:  
 Sampling within vicinity low point in swale feature is not a wetland. There are several nearby patches of Baltic rush that are situated above this point.

## VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test Worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.00000</u> (A/B)
1. <u>    </u>	<u>    </u>	<u>    </u>	<u>    </u>	
2. <u>    </u>	<u>    </u>	<u>    </u>	<u>    </u>	
3. <u>    </u>	<u>    </u>	<u>    </u>	<u>    </u>	
4. <u>    </u>	<u>    </u>	<u>    </u>	<u>    </u>	
		= Total Cover		
Sapling/Shrub Stratum (Plot size: )				<b>Prevalence Index worksheet:</b> Total % Cover of: <u>    </u> Multiply by: <u>    </u> OBL species <u>    </u> x1= <u>    </u> FACW species <u>5</u> x2= <u>10</u> FAC species <u>65</u> x3= <u>195</u> FACU species <u>    </u> x4= <u>0</u> UPL species <u>15</u> x5= <u>75</u> Column Totals: <u>85</u> (A) <u>280</u> (B)  <i>Prevalence Index = B/A= 3.29</i>
1. <u>    </u>	<u>    </u>	<u>    </u>	<u>    </u>	
2. <u>    </u>	<u>    </u>	<u>    </u>	<u>    </u>	
3. <u>    </u>	<u>    </u>	<u>    </u>	<u>    </u>	
4. <u>    </u>	<u>    </u>	<u>    </u>	<u>    </u>	
		= Total Cover		
Herb Stratum (Plot size: 5)				<b>Hydrophytic Vegetation Indicators:</b> X Dominance Test is >50% Prevalence Index is ≤3.0 <sup>1</sup> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. <b>Hydrophytic Vegetation Present?</b> Yes <u>X</u> No <u>    </u>
1. <u>Lepidium latifolium</u>	<u>40</u>	<u>Yes</u>	<u>FAC</u>	
2. <u>Rumex crispus</u>	<u>20</u>	<u>Yes</u>	<u>FAC</u>	
3. <u>Bromus racemosus</u>	<u>15</u>	<u>No</u>	<u>UPL</u>	
4. <u>Poa palustris</u>	<u>5</u>	<u>No</u>	<u>FAC</u>	
5. <u>Juncus balticus</u>	<u>5</u>	<u>No</u>	<u>FACW</u>	
6. <u>    </u>	<u>    </u>	<u>    </u>	<u>    </u>	
7. <u>    </u>	<u>    </u>	<u>    </u>	<u>    </u>	
8. <u>    </u>	<u>    </u>	<u>    </u>	<u>    </u>	
		= Total Cover		
Woody Vine Stratum (Plot size: )				
1. <u>    </u>	<u>    </u>	<u>    </u>	<u>    </u>	
2. <u>    </u>	<u>    </u>	<u>    </u>	<u>    </u>	
		= Total Cover		
% Bare Ground in Herb Stratum <u>10</u>		% Cover of Biotic Crust <sup>0</sup> <u>    </u>		

Remarks:  
 Mixed pastureland vegetation is hydrophytic within plot.



SOIL

Sampling Point: MP-05302017-2-OUT-2

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-2	10YR 3/3	100					Organic	
2-8	10YR 4/2	100					Silt Loam	
8-10	10YR 5/3	100					Clay Loam	
10-20	7.5YR 5/3	100					Sandy Loam	

<sup>1</sup>Type: C= Concentration, D= Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

Indicators for Problematic Hydric Soils<sup>3</sup>:

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) ( <b>LRR C</b> )
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) ( <b>LRR B</b> )
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) ( <b>LRR C</b> )	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) ( <b>LRR D</b> )	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present?

Yes ☐

No ☐

X ☐

Remarks:

No indicators observed in profile.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

Secondary Indicators (2 or more required)

<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) ( <b>Riverine</b> )
<input type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) ( <b>Riverine</b> )
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) ( <b>Riverine</b> )
<input type="checkbox"/> Water Marks (B1) ( <b>Nonriverine</b> )	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) ( <b>Nonriverine</b> )	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches):

Water Table Present? Yes ☐ No ☒ Depth (inches):

Saturation Present? Yes ☐ No ☒ Depth (inches):

(includes capillary fringe)

Wetland Hydrology Present? Yes ☐ No ☐ X ☐

Describe Recorded Date (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No indicators observed. Moist but not saturated at 15".

**Sampling Site: MP-05302017-2-OUT-2**



**Photo Name:** Photo\_170530125134.jpg

**Direction:**

**Caption:**



**Photo Name:** Photo\_170530125157.jpg

**Direction:**

**Caption:**



# WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: WDC Wetland Update City/County: Davis Sampling Date: 5/12/2017  
 Applicant/Owner: UDOT State: UT Sampling Point: MP-05122017-1-IN  
 Investigators: M. Perkins Section, Township, Range: 22 4N 2W  
 Landform (hillslope, terrace, etc.): Valley Local Relief (concave, convex, none): Concave Slope(%): 2  
 Subregion (LRR): D - Western Range and Lat: 41.068199 Long: -112.062691 Datum: WGS84  
 Soil Map Unit Name: Ford loam, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation: \_\_\_\_\_ Soil \_\_\_\_\_ or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation: \_\_\_\_\_ Soil \_\_\_\_\_ or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____
Hydric Soil Present?	Yes <u>X</u> No _____	
Wetland Hydrology Present?	Yes <u>X</u> No _____	

Remarks:  
 Channel feature is a wetland.

## VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test Worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.00000</u> (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
			= Total Cover	
<u>Sapling/Shrub Stratum</u> (Plot size: )				<b>Prevalence Index worksheet:</b> <u>Total % Cover of:</u> _____ <u>Multiply by:</u> _____ OBL species <u>35</u> x1= <u>35</u> FACW species _____ x2= <u>0</u> FAC species <u>35</u> x3= <u>105</u> FACU species _____ x4= <u>0</u> UPL species _____ x5= <u>0</u> Column Totals: <u>70</u> (A) <u>140</u> (B)  <i>Prevalence Index = B/A=</i> <u>2.00</u>
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
			= Total Cover	
<u>Herb Stratum</u> (Plot size: 5)				<b>Hydrophytic Vegetation Indicators:</b> X Dominance Test is >50% X Prevalence Index is ≤3.0 <sup>1</sup> _____ Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. <b>Hydrophytic Vegetation Present?</b> Yes _____ No <u>X</u>
1. <u>Eleocharis palustris</u>	<u>35</u>	<u>Yes</u>	<u>OBL</u>	
2. <u>Hordeum jubatum</u>	<u>20</u>	<u>Yes</u>	<u>FAC</u>	
3. <u>Lepidium latifolium</u>	<u>15</u>	<u>Yes</u>	<u>FAC</u>	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
			= Total Cover	
<u>Woody Vine Stratum</u> (Plot size: )				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
			= Total Cover	
% Bare Ground in Herb Stratum <u>30</u>	% Cover of Biotic Crust <sup>0</sup> _____			

Remarks:

SOIL

Sampling Point: MP-05122017-1-IN

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-4	10YR 3/2	100					Silty Clay	
4-20	10YR 5/1	100					Clay Loam	

<sup>1</sup>Type: C= Concentration, D= Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

Indicators for Problematic Hydric Soils<sup>3</sup>:

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) ( <b>LRR C</b> )
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) ( <b>LRR B</b> )
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) ( <b>LRR C</b> )	<input checked="" type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) ( <b>LRR D</b> )	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes ☒ No ☐

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

Secondary Indicators (2 or more required)

<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) ( <b>Riverine</b> )
<input checked="" type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) ( <b>Riverine</b> )
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) ( <b>Riverine</b> )
<input type="checkbox"/> Water Marks (B1) ( <b>Nonriverine</b> )	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) ( <b>Nonriverine</b> )	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input checked="" type="checkbox"/> FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches):

Water Table Present? Yes ☒ No ☐ Depth (inches):  10.0

Saturation Present? Yes ☒ No ☐ Depth (inches):  0.0

(includes capillary fringe)

Wetland Hydrology Present? Yes ☒ No ☐

Describe Recorded Date (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:



# WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: WDC Wetland Update City/County: Davis Sampling Date: 6/1/2017  
 Applicant/Owner: UDOT State: UT Sampling Point: MP-05312016-5-OUT  
 Investigators: M. Perkins Section, Township, Range: 16 4N 2W  
 Landform (hillslope, terrace, etc.): Valley Local Relief (concave, convex, none): Convex Slope(%): 2  
 Subregion (LRR): D - Western Range and Lat: 41.087090 Long: -112.080170 Datum: WGS84  
 Soil Map Unit Name: Ford loam, 0 to 1 percent slopes NWI Classification: PEM1C

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No      (If No, explain in Remarks)  
 Are Vegetation:      Soil      or Hydrology      significantly disturbed? Are "Normal Circumstances" present? Yes X No       
 Are Vegetation:      Soil      or Hydrology      naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <u>    </u>	No <u>X</u>	Is the Sampled Area within a Wetland?	Yes <u>    </u>	No <u>X</u>
Hydric Soil Present?	Yes <u>    </u>	No <u>    </u>			
Wetland Hydrology Present?	Yes <u>    </u>	No <u>    </u>			

Remarks:  
 Out point in upland vegetation. No soil pit.

## VEGETATION – Use scientific names of plants.

Tree Stratum	(Plot size: )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test Worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>    0    </u> (A) Total Number of Dominant Species Across All Strata: <u>    1    </u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0.0000000</u> (A/B)
1.					
2.					
3.					
4.					
= Total Cover					
Sapling/Shrub Stratum	(Plot size: )				<b>Prevalence Index worksheet:</b> Total % Cover of: <u>    </u> Multiply by: OBL species <u>    </u> x1= <u>    </u> FACW species <u>10</u> x2= <u>20</u> FAC species <u>15</u> x3= <u>45</u> FACU species <u>    </u> x4= <u>0</u> UPL species <u>80</u> x5= <u>400</u> Column Totals: <u>105</u> (A) <u>465</u> (B)  <i>Prevalence Index = B/A= 4.43</i>
1.					
2.					
3.					
4.					
5.					
= Total Cover					
Herb Stratum	(Plot size: 5)				<b>Hydrophytic Vegetation Indicators:</b> Dominance Test is >50% Prevalence Index is ≤3.0 <sup>1</sup> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
1.	Thinopyrum intermedium	80	Yes	UPL	
2.	Distichlis spicata	15	No	FAC	
3.	Juncus balticus	5	No	FACW	
4.	Phragmites australis	5	No	FACW	
5.					
6.					
7.					
8.					
105 = Total Cover					
Woody Vine Stratum	(Plot size: )				<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.  <b>Hydrophytic            Vegetation</b> Yes <u>    </u> No <u>X</u> <b>Present?</b>
1.					
2.					
= Total Cover					
% Bare Ground in Herb Stratum	0		% Cover of Biotic Crust	0	

Remarks:

SOIL

Sampling Point: MP-05312016-5-OUT

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		

<sup>1</sup>Type: C= Concentration, D= Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

Indicators for Problematic Hydric Soils<sup>3</sup>:

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) ( <b>LRR C</b> )
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) ( <b>LRR B</b> )
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) ( <b>LRR C</b> )	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) ( <b>LRR D</b> )	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present?

Yes ☐ No ☐

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

Secondary Indicators (2 or more required)

<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) ( <b>Riverine</b> )
<input type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) ( <b>Riverine</b> )
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) ( <b>Riverine</b> )
<input type="checkbox"/> Water Marks (B1) ( <b>Nonriverine</b> )	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) ( <b>Nonriverine</b> )	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ☐ No ☐ Depth (inches):

Water Table Present? Yes ☐ No ☐ Depth (inches):

Saturation Present? Yes ☐ No ☐ Depth (inches):

(includes capillary fringe)

Wetland Hydrology Present? Yes ☐ No ☐

Describe Recorded Date (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:



**Sampling Site:** MP-05312016-5-OUT



**Photo Name:** Photo\_170531190301.jpg

**Direction:**

**Caption:**

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: WDC Wetland Update City/County: Davis Sampling Date: 6/1/2017  
 Applicant/Owner: UDOT State: UT Sampling Point: MP-06012017-3-OUT  
 Investigators: M. Perkins Section, Township, Range: 05 4N 2W  
 Landform (hillslope, terrace, etc.): Terrace Tread Local Relief (concave, convex, none): Convex Slope(%): 2  
 Subregion (LRR): D - Western Range and Lat: 41.110733 Long: -112.099434 Datum: WGS84  
 Soil Map Unit Name: Parleys loam, 6 to 10 percent slopes NWI Classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation: \_\_\_\_\_ Soil \_\_\_\_\_ or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation: \_\_\_\_\_ Soil \_\_\_\_\_ or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b>	Yes _____ No <u>X</u>
Hydric Soil Present?	Yes _____ No _____		
Wetland Hydrology Present?	Yes _____ No _____		

Remarks:  
 Upland vegetation so no soil pit.

## VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet:
1. _____	_____	_____	_____	Number of Dominant Species
2. _____	_____	_____	_____	That Are OBL, FACW, or FAC: _____ 0 (A)
3. _____	_____	_____	_____	Total Number of Dominant
4. _____	_____	_____	_____	Species Across All Strata: _____ 1 (B)
	_____	= Total Cover	_____	Percent of Dominant Species
	_____		_____	That Are OBL, FACW, or FAC: _____ 0.0000000 (A/B)
Sapling/Shrub Stratum (Plot size: )				Prevalence Index worksheet:
1. _____	_____	_____	_____	Total % Cover of: _____ Multiply by: _____
2. _____	_____	_____	_____	OBL species _____ x1= _____
3. _____	_____	_____	_____	FACW species _____ 5 x2= _____ 10
4. _____	_____	_____	_____	FAC species _____ 5 x3= _____ 15
5. _____	_____	_____	_____	FACU species _____ 5 x4= _____ 20
	_____	= Total Cover	_____	UPL species _____ 85 x5= _____ 425
	_____		_____	Column Totals: _____ 100 (A) _____ 470 (B)
Herb Stratum (Plot size: 5)				Prevalence Index = B/A= _____ 4.70
1. <u>Cardaria draba</u>	85	Yes	UPL	<b>Hydrophytic Vegetation Indicators:</b> Dominance Test is >50% Prevalence Index is ≤3.0 <sup>1</sup> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. <u>Dipsacus fullonum</u>	5	No	FAC	
3. <u>Conyza canadensis</u>	5	No	FACU	
4. <u>Conium maculatum</u>	5	No	FACW	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
	100	= Total Cover	_____	
Woody Vine Stratum (Plot size: )				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
	_____	= Total Cover	_____	
% Bare Ground in Herb Stratum	0	% Cover of Biotic Crust	0	

Remarks:



SOIL

Sampling Point: MP-06012017-3-OUT

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		

<sup>1</sup>Type: C= Concentration, D= Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

Indicators for Problematic Hydric Soils<sup>3</sup>:

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) ( <b>LRR C</b> )
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) ( <b>LRR B</b> )
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) ( <b>LRR C</b> )	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) ( <b>LRR D</b> )	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present?

Yes ☐ No ☐

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

Secondary Indicators (2 or more required)

<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) ( <b>Riverine</b> )
<input type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) ( <b>Riverine</b> )
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) ( <b>Riverine</b> )
<input type="checkbox"/> Water Marks (B1) ( <b>Nonriverine</b> )	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) ( <b>Nonriverine</b> )	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ☐ No ☐ Depth (inches):

Water Table Present? Yes ☐ No ☐ Depth (inches):

Saturation Present? Yes ☐ No ☐ Depth (inches):

(includes capillary fringe)

Wetland Hydrology Present? Yes ☐ No ☐

Describe Recorded Date (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**Sampling Site:** MP-06012017-3-OUT



**Photo Name:** Photo\_170601122328.jpg

**Direction:**

**Caption:**



# WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: WDC Wetland Update City/County: Davis Sampling Date: 5/30/2017  
 Applicant/Owner: UDOT State: UT Sampling Point: MP-05122017-1-IN-3  
 Investigators: M. Perkins Section, Township, Range: 22 4N 2W  
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): None Slope(%):           
 Subregion (LRR): D - Western Range and Lat: 41.066654 Long: -112.061005 Datum: WGS84  
 Soil Map Unit Name: Ford loam, 0 to 1 percent slopes NWI Classification: PEM1/USA

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No          (If No, explain in Remarks)  
 Are Vegetation:          Soil          or Hydrology          significantly disturbed? Are "Normal Circumstances" present? Yes X No           
 Are Vegetation:          Soil          or Hydrology          naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <u>X</u>	No <u>        </u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No <u>        </u>
Hydric Soil Present?	Yes <u>X</u>	No <u>        </u>	
Wetland Hydrology Present?	Yes <u>X</u>	No <u>        </u>	

Remarks:  
 Seasonal wetland on relic saline feature.

## VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test Worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>66.660000</u> (A/B)
1. <u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	
2. <u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	
3. <u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	
4. <u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	
			= Total Cover	
<u>Sapling/Shrub Stratum</u> (Plot size: )				<b>Prevalence Index worksheet:</b> <u>Total % Cover of:</u> <u>        </u> <u>Multiply by:</u> <u>        </u> OBL species <u>        </u> x1= <u>        </u> FACW species <u>10</u> x2= <u>20</u> FAC species <u>20</u> x3= <u>60</u> FACU species <u>10</u> x4= <u>40</u> UPL species <u>        </u> x5= <u>0</u> Column Totals: <u>40</u> (A) <u>120</u> (B)  <i>Prevalence Index = B/A=</i> <u>3.00</u>
1. <u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	
2. <u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	
3. <u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	
4. <u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	
5. <u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	
			= Total Cover	
<u>Herb Stratum</u> (Plot size: 10)				
1. <u>Distichlis spicata</u>	<u>20</u>	<u>Yes</u>	<u>FAC</u>	
2. <u>Hordeum pusillum</u>	<u>10</u>	<u>Yes</u>	<u>FACU</u>	
3. <u>Suaeda occidentalis</u>	<u>10</u>	<u>Yes</u>	<u>FACW</u>	
4. <u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	
5. <u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	
6. <u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	
7. <u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	
8. <u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	
			<u>40</u>	= Total Cover
<u>Woody Vine Stratum</u> (Plot size: )				<b>Hydrophytic Vegetation Indicators:</b> X Dominance Test is >50% X Prevalence Index is ≤3.0 <sup>1</sup> <u>        </u> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <u>        </u> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
1. <u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	
2. <u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	
			= Total Cover	
% Bare Ground in Herb Stratum <u>60</u>	% Cover of Biotic Crust <sup>0</sup> <u>        </u>			<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
<b>Hydrophytic Vegetation Present?</b> Yes <u>X</u> No <u>        </u>				

Remarks:

SOIL

Sampling Point: MP-05122017-1-IN-3

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-4	10YR 4/3	100					Clay Loam	
4-20	10YR 6/2	100					Clay Loam	

<sup>1</sup>Type: C= Concentration, D= Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

Indicators for Problematic Hydric Soils<sup>3</sup>:

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) ( <b>LRR C</b> )
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) ( <b>LRR B</b> )
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) ( <b>LRR C</b> )	<input checked="" type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) ( <b>LRR D</b> )	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present?

Yes

☒ X

No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

Secondary Indicators (2 or more required)

<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) ( <b>Riverine</b> )
<input type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) ( <b>Riverine</b> )
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) ( <b>Riverine</b> )
<input type="checkbox"/> Water Marks (B1) ( <b>Nonriverine</b> )	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) ( <b>Nonriverine</b> )	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ☐ No ☒ X Depth (inches):

Water Table Present? Yes ☐ No ☒ X Depth (inches):

Saturation Present? Yes ☒ X No ☐ Depth (inches):  4.0

(includes capillary fringe)

Wetland Hydrology Present?

Yes

☒ X

No

Describe Recorded Date (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:



# WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: WDC Wetland Update City/County: Davis Sampling Date: 5/30/2017  
 Applicant/Owner: UDOT State: UT Sampling Point: MP-05302017-2-OUT-4  
 Investigators: M. Perkins Section, Township, Range: 21 4N 2W  
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): Concave Slope(%): 1  
 Subregion (LRR): D - Western Range and Lat: 41.072742 Long: -112.068886 Datum: WGS84  
 Soil Map Unit Name: Ford loam, 0 to 1 percent slopes NWI Classification: PEM1/USA

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No      (If No, explain in Remarks)  
 Are Vegetation:      Soil      or Hydrology      significantly disturbed? Are "Normal Circumstances" present? Yes X No       
 Are Vegetation:      Soil      or Hydrology      naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <u>X</u>	No <u>    </u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>    </u> No <u>X</u>
Hydric Soil Present?	Yes <u>    </u>	No <u>X</u>	
Wetland Hydrology Present?	Yes <u>    </u>	No <u>X</u>	

Remarks:  
 Sampling in subtle broad swale dominated by Baltic rush. Pattern for this irrigated pasture is that the lowest depressions and swales meet all three wetland parameters while slightly higher areas, including areas dominated by rush and field sedge do not meet indicate hydric soils or wetland hydrology.

## VEGETATION – Use scientific names of plants.

Tree Stratum	(Plot size: )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test Worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.00000</u> (A/B)
1.					
2.					
3.					
4.					
				= Total Cover	
<b>Sapling/Shrub Stratum</b> (Plot size: )					<b>Prevalence Index worksheet:</b> <b>Total % Cover of:</b> <u>    </u> <b>Multiply by:</b> <u>    </u> OBL species <u>    </u> x1= <u>    </u> FACW species <u>100</u> x2= <u>200</u> FAC species <u>    </u> x3= <u>0</u> FACU species <u>    </u> x4= <u>0</u> UPL species <u>    </u> x5= <u>0</u> Column Totals: <u>100</u> (A) <u>200</u> (B)  <i>Prevalence Index = B/A=</i> <u>2.00</u>
1.					
2.					
3.					
4.					
5.					
				= Total Cover	
<b>Herb Stratum</b> (Plot size: 5)					<b>Hydrophytic Vegetation Indicators:</b> X Dominance Test is >50% X Prevalence Index is ≤3.0 <sup>1</sup> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. <b>Hydrophytic Vegetation Present?</b> Yes <u>X</u> No <u>    </u>
1.	Juncus balticus	100	Yes	FACW	
2.					
3.					
4.					
5.					
6.					
7.					
8.					
				100	= Total Cover
<b>Woody Vine Stratum</b> (Plot size: )					
1.					
2.					
				= Total Cover	
% Bare Ground in Herb Stratum <u>0</u>		% Cover of Biotic Crust <sup>0</sup> <u>    </u>			

Remarks:

SOIL

Sampling Point: MP-05302017-2-OUT-4

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-1	10YR 4/3	100					Organic	
1-10	10YR 4/3	100					Silty Clay	
10-20	10YR 5/3	100					Clay Loam	

<sup>1</sup>Type: C= Concentration, D= Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

Indicators for Problematic Hydric Soils<sup>3</sup>:

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) ( <b>LRR C</b> )
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) ( <b>LRR B</b> )
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) ( <b>LRR C</b> )	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) ( <b>LRR D</b> )	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present?

Yes ☐ No ☐ X ☐

Remarks:

No indicators observed in profile.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

Secondary Indicators (2 or more required)

<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) ( <b>Riverine</b> )
<input type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) ( <b>Riverine</b> )
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) ( <b>Riverine</b> )
<input type="checkbox"/> Water Marks (B1) ( <b>Nonriverine</b> )	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) ( <b>Nonriverine</b> )	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input checked="" type="checkbox"/> FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ☐ No ☒ X ☐ Depth (inches):

Water Table Present? Yes ☐ No ☒ X ☐ Depth (inches):

Saturation Present? Yes ☒ X ☐ No ☐ Depth (inches):  16.0

(includes capillary fringe)

Wetland Hydrology Present? Yes ☐ No ☐ X ☒

Describe Recorded Date (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:



**Sampling Site: MP-05302017-2-OUT-4**



**Photo Name:** Photo\_170530144418.jpg

**Direction:**

**Caption:**



**Photo Name:** Photo\_170530144430.jpg

**Direction:**

**Caption:**

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: WDC Wetland Update City/County: Davis Sampling Date: 5/18/2017  
 Applicant/Owner: UDOT State: UT Sampling Point: MP-05182017-2-OUT  
 Investigators: M. Perkins Section, Township, Range: 31 3N 1E  
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): Convex Slope(%): 1  
 Subregion (LRR): D - Western Range and Lat: 40.954254 Long: -111.889778 Datum: WGS84  
 Soil Map Unit Name: Ironton silt loam, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation: \_\_\_\_\_ Soil \_\_\_\_\_ or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation: \_\_\_\_\_ Soil \_\_\_\_\_ or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b>	
Hydric Soil Present?	Yes _____	No _____		
Wetland Hydrology Present?	Yes _____	No _____		Yes _____ No <u>X</u>

Remarks:  
 Vegetation not hydrophytic here. No soil pit dug.

## VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test Worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0.0000000</u> (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
			= Total Cover	
<b>Sapling/Shrub Stratum (Plot size: )</b>				
1. _____	_____	_____	_____	<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x1= _____ FACW species _____ x2= <u>0</u> FAC species <u>25</u> x3= <u>75</u> FACU species <u>65</u> x4= <u>260</u> UPL species _____ x5= <u>0</u> Column Totals: <u>90</u> (A) <u>335</u> (B)  <i>Prevalence Index = B/A= 3.72</i>
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
			= Total Cover	
<b>Herb Stratum (Plot size: 5)</b>				
1. <u>Festuca pratensis</u>	<u>65</u>	<u>Yes</u>	<u>FACU</u>	<b>Hydrophytic Vegetation Indicators:</b> _____ Dominance Test is >50% _____ Prevalence Index is ≤3.0 <sup>1</sup> _____ Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.  <b>Hydrophytic Vegetation Present?</b> Yes _____ No <u>X</u>
2. <u>Lepidium latifolium</u>	<u>15</u>	<u>No</u>	<u>FAC</u>	
3. <u>Distichlis spicata</u>	<u>10</u>	<u>No</u>	<u>FAC</u>	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
			= Total Cover	
<b>Woody Vine Stratum (Plot size: )</b>				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
			= Total Cover	
% Bare Ground in Herb Stratum <u>20</u>	% Cover of Biotic Crust <sup>0</sup> _____			

Remarks:



SOIL

Sampling Point: MP-05182017-2-OUT

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		

<sup>1</sup>Type: C= Concentration, D= Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

Indicators for Problematic Hydric Soils<sup>3</sup>:

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) ( <b>LRR C</b> )
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) ( <b>LRR B</b> )
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) ( <b>LRR C</b> )	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) ( <b>LRR D</b> )	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present?

Yes ☐ No ☐

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

Secondary Indicators (2 or more required)

<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) ( <b>Riverine</b> )
<input type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) ( <b>Riverine</b> )
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) ( <b>Riverine</b> )
<input type="checkbox"/> Water Marks (B1) ( <b>Nonriverine</b> )	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) ( <b>Nonriverine</b> )	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ☐ No ☐ Depth (inches):

Water Table Present? Yes ☐ No ☐ Depth (inches):

Saturation Present? Yes ☐ No ☐ Depth (inches):

(includes capillary fringe)

Wetland Hydrology Present?

Yes ☐ No ☐

Describe Recorded Date (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Raining so difficult to evaluate saturation.

**Sampling Site:** MP-05182017-2-OUT



**Photo Name:** Photo\_170518140333.jpg

**Direction:**

**Caption:**



# WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: WDC Wetland Update City/County: Davis Sampling Date: 5/31/2017  
 Applicant/Owner: UDOT State: UT Sampling Point: MP-05312016-1-IN  
 Investigators: M. Perkins Section, Township, Range: 21 4N 2W  
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): Concave Slope(%): 2  
 Subregion (LRR): D - Western Range and Lat: 41.073921 Long: -112.066795 Datum: WGS84  
 Soil Map Unit Name: Ford loam, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation: \_\_\_\_\_ Soil \_\_\_\_\_ or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation: \_\_\_\_\_ Soil \_\_\_\_\_ or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <u>X</u>	No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____
Hydric Soil Present?	Yes <u>X</u>	No _____	
Wetland Hydrology Present?	Yes <u>X</u>	No _____	

Remarks:  
 Low area in pasture is a wetland.

## VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test Worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.00000</u> (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
			= Total Cover	
<u>Sapling/Shrub Stratum</u> (Plot size: )				<b>Prevalence Index worksheet:</b> <u>Total % Cover of:</u> _____ <u>Multiply by:</u> _____ OBL species <u>45</u> x1= <u>45</u> FACW species <u>10</u> x2= <u>20</u> FAC species <u>10</u> x3= <u>30</u> FACU species <u>10</u> x4= <u>40</u> UPL species _____ x5= <u>0</u> Column Totals: <u>75</u> (A) <u>135</u> (B)  <i>Prevalence Index = B/A=</i> <u>1.80</u>
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
			= Total Cover	
<u>Herb Stratum</u> (Plot size: 5)				<b>Hydrophytic Vegetation Indicators:</b> X Dominance Test is >50% X Prevalence Index is ≤3.0 <sup>1</sup> _____ Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.  <b>Hydrophytic Vegetation Present?</b> Yes <u>X</u> No _____
1. <u>Carex nebrascensis</u>	<u>30</u>	<u>Yes</u>	<u>OBL</u>	
2. <u>Eleocharis palustris</u>	<u>15</u>	<u>Yes</u>	<u>OBL</u>	
3. <u>Poa palustris</u>	<u>10</u>	<u>No</u>	<u>FAC</u>	
4. <u>Festuca pratensis</u>	<u>10</u>	<u>No</u>	<u>FACU</u>	
5. <u>Juncus balticus</u>	<u>10</u>	<u>No</u>	<u>FACW</u>	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
			= Total Cover	
<u>Woody Vine Stratum</u> (Plot size: )				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
			= Total Cover	
% Bare Ground in Herb Stratum <u>25</u>		% Cover of Biotic Crust <sup>0</sup> _____		

Remarks:

SOIL

Sampling Point: MP-05312016-1-IN

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-2	10YR 4/3	100					Organic	
2-10	10YR 4/2	97	G1 2.5/N	3	C	M	Silty Clay	Mn Concentrations
10-16	10YR 3/3	80	10YR 2/1	20			Clay Loam	2/1 is part of matrix.
16-20	7.5YR 5/3	90	7.5YR 4/2	10			Clay Loam	4/2 is part of matrix.

<sup>1</sup>Type: C= Concentration, D= Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators for Problematic Hydric Soils <sup>3</sup> :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) ( <b>LRR C</b> )
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) ( <b>LRR B</b> )
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) ( <b>LRR C</b> )	<input checked="" type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) ( <b>LRR D</b> )	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

<b>Restrictive Layer (if present):</b> Type: _____ Depth (inches): _____	<b>Hydric Soil Present?</b> Yes <input checked="" type="checkbox"/> No    _____
--	---

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:					
Primary Indicators (minimum of one required; check all that apply)			Secondary Indicators (2 or more required)		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) ( <b>Riverine</b> )			
<input type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) ( <b>Riverine</b> )			
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) ( <b>Riverine</b> )			
<input type="checkbox"/> Water Marks (B1) ( <b>Nonriverine</b> )	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)			
<input type="checkbox"/> Sediment Deposits (B2) ( <b>Nonriverine</b> )	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)			
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)			
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)			
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input checked="" type="checkbox"/> FAC-Neutral Test (D5)			
<b>Field Observations:</b> Surface Water Present?    Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present?    Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present?    Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): _____ 11.0 (includes capillary fringe)			<b>Wetland Hydrology Present?</b> Yes <input checked="" type="checkbox"/> No    _____		

Describe Recorded Date (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:



**Sampling Site:** MP-05312016-1-IN



**Photo Name:** Photo\_170531112221.jpg

**Direction:**

**Caption:**



**Photo Name:** Photo\_170531112243.jpg

**Direction:**

**Caption:**

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: WDC Wetland Update City/County: Davis Sampling Date: 5/30/2017  
 Applicant/Owner: UDOT State: UT Sampling Point: MP-05302017-2-IN  
 Investigators: M. Perkins Section, Township, Range: 21 4N 2W  
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): Concave Slope(%): 3  
 Subregion (LRR): D - Western Range and Lat: 41.072937 Long: -112.070190 Datum: WGS84  
 Soil Map Unit Name: Ford loam, 0 to 1 percent slopes NWI Classification: PEM1/USA

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No      (If No, explain in Remarks)  
 Are Vegetation:      Soil      or Hydrology      significantly disturbed? Are "Normal Circumstances" present? Yes X No       
 Are Vegetation:      Soil      or Hydrology      naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <u>X</u>	No <u>    </u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No <u>    </u>
Hydric Soil Present?	Yes <u>X</u>	No <u>    </u>	
Wetland Hydrology Present?	Yes <u>X</u>	No <u>    </u>	

Remarks:  
 Sampling point indicates swale feature is a wetland here.

## VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test Worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.00000</u> (A/B)
1. <u>    </u>	<u>    </u>	<u>    </u>	<u>    </u>	
2. <u>    </u>	<u>    </u>	<u>    </u>	<u>    </u>	
3. <u>    </u>	<u>    </u>	<u>    </u>	<u>    </u>	
4. <u>    </u>	<u>    </u>	<u>    </u>	<u>    </u>	
			= Total Cover	
<u>Sapling/Shrub Stratum</u> (Plot size: )				<b>Prevalence Index worksheet:</b> <u>Total % Cover of:</u> <u>    </u> <u>Multiply by:</u> <u>    </u> OBL species <u>    </u> x1= <u>    </u> FACW species <u>40</u> x2= <u>80</u> FAC species <u>50</u> x3= <u>150</u> FACU species <u>    </u> x4= <u>0</u> UPL species <u>    </u> x5= <u>0</u> Column Totals: <u>90</u> (A) <u>230</u> (B)  <i>Prevalence Index = B/A=</i> <u>2.56</u>
1. <u>    </u>	<u>    </u>	<u>    </u>	<u>    </u>	
2. <u>    </u>	<u>    </u>	<u>    </u>	<u>    </u>	
3. <u>    </u>	<u>    </u>	<u>    </u>	<u>    </u>	
4. <u>    </u>	<u>    </u>	<u>    </u>	<u>    </u>	
5. <u>    </u>	<u>    </u>	<u>    </u>	<u>    </u>	
			= Total Cover	
<u>Herb Stratum</u> (Plot size: 5)				<b>Hydrophytic Vegetation Indicators:</b> X Dominance Test is >50% X Prevalence Index is ≤3.0 <sup>1</sup> <u>    </u> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <u>    </u> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. <b>Hydrophytic Vegetation Present?</b> Yes <u>X</u> No <u>    </u>
1. <u>Juncus balticus</u>	<u>40</u>	<u>Yes</u>	<u>FACW</u>	
2. <u>Lepidium latifolium</u>	<u>25</u>	<u>Yes</u>	<u>FAC</u>	
3. <u>Hordeum jubatum</u>	<u>20</u>	<u>Yes</u>	<u>FAC</u>	
4. <u>Rumex crispus</u>	<u>5</u>	<u>No</u>	<u>FAC</u>	
5. <u>    </u>	<u>    </u>	<u>    </u>	<u>    </u>	
6. <u>    </u>	<u>    </u>	<u>    </u>	<u>    </u>	
7. <u>    </u>	<u>    </u>	<u>    </u>	<u>    </u>	
8. <u>    </u>	<u>    </u>	<u>    </u>	<u>    </u>	
			= Total Cover	
<u>Woody Vine Stratum</u> (Plot size: )				
1. <u>    </u>	<u>    </u>	<u>    </u>	<u>    </u>	
2. <u>    </u>	<u>    </u>	<u>    </u>	<u>    </u>	
			= Total Cover	
% Bare Ground in Herb Stratum <u>0</u>		% Cover of Biotic Crust <u>0</u>		

Remarks:



SOIL

Sampling Point: MP-05302017-2-IN

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-3	10YR 4/3	100					Silty Clay	
3-10	10YR 4/2	80	7.5YR 5/8	5	C	M	Silty Clay	
3-10	7.5YR 5/3	15						

<sup>1</sup>Type: C= Concentration, D= Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

Indicators for Problematic Hydric Soils<sup>3</sup>:

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) ( <b>LRR C</b> )
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) ( <b>LRR B</b> )
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) ( <b>LRR C</b> )	<input checked="" type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) ( <b>LRR D</b> )	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

Restrictive Layer (if present):

Type: Calcic

Depth (inches): 10

Hydric Soil Present? Yes ☒ No ☐

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

Secondary Indicators (2 or more required)

<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) ( <b>Riverine</b> )
<input type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) ( <b>Riverine</b> )
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) ( <b>Riverine</b> )
<input type="checkbox"/> Water Marks (B1) ( <b>Nonriverine</b> )	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) ( <b>Nonriverine</b> )	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input checked="" type="checkbox"/> FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches):

Water Table Present? Yes ☐ No ☒ Depth (inches):

Saturation Present? Yes ☒ No ☐ Depth (inches): 9.0

(includes capillary fringe)

Wetland Hydrology Present? Yes ☒ No ☐

Describe Recorded Date (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**Sampling Site:** MP-05302017-2-IN



**Photo Name:** Photo\_170530132104.jpg

**Direction:**

**Caption:**



**Photo Name:** Photo\_170530132514.jpg

**Direction:**

**Caption:**



# WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: WDC Wetland Update City/County: Davis Sampling Date: 6/1/2017  
 Applicant/Owner: UDOT State: UT Sampling Point: MP-06012017-3-OUT-5  
 Investigators: MP Section, Township, Range: 05 4N 2W  
 Landform (hillslope, terrace, etc.): Toeslope Local Relief (concave, convex, none): Convex Slope(%): 3  
 Subregion (LRR): D - Western Range and Lat: 41.110134 Long: -112.099731 Datum: WGS84  
 Soil Map Unit Name: Ford loam, shallow water table, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation: \_\_\_\_\_ Soil \_\_\_\_\_ or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation: \_\_\_\_\_ Soil \_\_\_\_\_ or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u>
Hydric Soil Present?	Yes _____ No _____	
Wetland Hydrology Present?	Yes _____ No _____	

Remarks:  
 Upland vegetation so no soil pit.

## VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test Worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0.0000000</u> (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
		= Total Cover		
<b>Sapling/Shrub Stratum (Plot size: )</b>				<b>Prevalence Index worksheet:</b> <b>Total % Cover of:</b> _____ <b>Multiply by:</b> _____ OBL species _____ x1= _____ FACW species _____ x2= <u>0</u> FAC species <u>15</u> x3= <u>45</u> FACU species _____ x4= <u>0</u> UPL species <u>40</u> x5= <u>200</u> Column Totals: <u>55</u> (A) <u>245</u> (B)  <i>Prevalence Index = B/A=</i> <u>4.45</u>
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
		= Total Cover		
<b>Herb Stratum (Plot size: 5)</b>				<b>Hydrophytic Vegetation Indicators:</b> Dominance Test is >50% Prevalence Index is ≤3.0 <sup>1</sup> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
1. <u>Atriplex micrantha</u>	<u>40</u>	<u>Yes</u>	<u>UPL</u>	
2. <u>Lepidium latifolium</u>	<u>10</u>	<u>No</u>	<u>FAC</u>	
3. <u>Dipsacus fullonum</u>	<u>5</u>	<u>No</u>	<u>FAC</u>	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
	<u>55</u>	= Total Cover		
<b>Woody Vine Stratum (Plot size: )</b>				<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
		= Total Cover		
% Bare Ground in Herb Stratum <u>50</u>		% Cover of Biotic Crust <sup>0</sup> _____		<b>Hydrophytic Vegetation Present?</b> Yes _____ No _____ X _____

Remarks:

SOIL

Sampling Point: MP-06012017-3-OUT-5

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		

<sup>1</sup>Type: C= Concentration, D= Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

Indicators for Problematic Hydric Soils<sup>3</sup>:

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) ( <b>LRR C</b> )
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) ( <b>LRR B</b> )
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) ( <b>LRR C</b> )	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) ( <b>LRR D</b> )	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present?

Yes ☐ No ☐

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (2 or more required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) ( <b>Riverine</b> )
<input type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) ( <b>Riverine</b> )
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) ( <b>Riverine</b> )
<input type="checkbox"/> Water Marks (B1) ( <b>Nonriverine</b> )	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) ( <b>Nonriverine</b> )	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ☐ No ☐ Depth (inches):

Water Table Present? Yes ☐ No ☐ Depth (inches):

Saturation Present? Yes ☐ No ☐ Depth (inches):

(includes capillary fringe)

Wetland Hydrology Present?

Yes ☐ No ☐

Describe Recorded Date (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:



**Sampling Site:** MP-06012017-3-OUT-5



**Photo Name:** Photo\_170601140955.jpg

**Direction:**

**Caption:**

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: WDC Wetland Update City/County: Davis Sampling Date: 5/12/2017  
 Applicant/Owner: UDOT State: UT Sampling Point: MP-05122017-2-IN  
 Investigators: M. Perkins Section, Township, Range: 22 4N 2W  
 Landform (hillslope, terrace, etc.): Valley Local Relief (concave, convex, none): None Slope(%):           
 Subregion (LRR): D - Western Range and Lat: 41.067513 Long: -112.056198 Datum: WGS84  
 Soil Map Unit Name: Ford loam, 0 to 1 percent slopes NWI Classification:         

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No          (If No, explain in Remarks)  
 Are Vegetation:          Soil          or Hydrology          significantly disturbed? Are "Normal Circumstances" present? Yes X No           
 Are Vegetation:          Soil          or Hydrology          naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <u>X</u>	No <u>        </u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No <u>        </u>
Hydric Soil Present?	Yes <u>X</u>	No <u>        </u>	
Wetland Hydrology Present?	Yes <u>X</u>	No <u>        </u>	

Remarks:  
 Sampling point is a wetland.

## VEGETATION – Use scientific names of plants.

Tree Stratum	(Plot size: )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test Worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>        </u> 1 (A) Total Number of Dominant Species Across All Strata: <u>        </u> 1 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.00000</u> (A/B)
1.	<u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	
2.	<u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	
3.	<u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	
4.	<u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	
					= Total Cover
<b>Sapling/Shrub Stratum</b> (Plot size: )					
1.	<u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	<b>Prevalence Index worksheet:</b> <u>Total % Cover of:</u> <u>        </u> <u>Multiply by:</u> <u>        </u> OBL species <u>        </u> x1= <u>        </u> FACW species <u>100</u> x2= <u>200</u> FAC species <u>        </u> x3= <u>0</u> FACU species <u>        </u> x4= <u>0</u> UPL species <u>        </u> x5= <u>0</u> Column Totals: <u>100</u> (A) <u>200</u> (B)  <i>Prevalence Index = B/A=</i> <u>2.00</u>
2.	<u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	
3.	<u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	
4.	<u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	
5.	<u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	
					= Total Cover
<b>Herb Stratum</b> (Plot size: 5)					
1.	<u>Juncus balticus</u>	<u>100</u>	<u>Yes</u>	<u>FACW</u>	<b>Hydrophytic Vegetation Indicators:</b> <u>X</u> Dominance Test is >50% <u>X</u> Prevalence Index is ≤3.0 <sup>1</sup> <u>        </u> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <u>        </u> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.  <b>Hydrophytic Vegetation Present?</b> Yes <u>X</u> No <u>        </u>
2.	<u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	
3.	<u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	
4.	<u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	
5.	<u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	
6.	<u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	
7.	<u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	
8.	<u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	
					= Total Cover
<b>Woody Vine Stratum</b> (Plot size: )					
1.	<u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	
2.	<u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	
					= Total Cover
% Bare Ground in Herb Stratum		<u>0</u>	% Cover of Biotic Crust		<u>0</u>

Remarks:



SOIL

Sampling Point: MP-05122017-2-IN

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-4	10YR 3/2	100					Silty Clay	
4-8	10YR 4/2	100					Silty Clay	
8-12	10YR 5/1	100					Clay Loam	
12-20	10YR 7/1	100					Clay Loam	

<sup>1</sup>Type: C= Concentration, D= Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

Indicators for Problematic Hydric Soils<sup>3</sup>:

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) ( <b>LRR C</b> )
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) ( <b>LRR B</b> )
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) ( <b>LRR C</b> )	<input checked="" type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) ( <b>LRR D</b> )	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present?

Yes

☒ X

No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

Secondary Indicators (2 or more required)

<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) ( <b>Riverine</b> )
<input type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) ( <b>Riverine</b> )
<input checked="" type="checkbox"/> X Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) ( <b>Riverine</b> )
<input type="checkbox"/> Water Marks (B1) ( <b>Nonriverine</b> )	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) ( <b>Nonriverine</b> )	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input checked="" type="checkbox"/> X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ☐ No ☒ X Depth (inches):

Water Table Present? Yes ☐ No ☒ X Depth (inches):

Saturation Present? Yes ☒ X No ☐ Depth (inches):  8.0

(includes capillary fringe)

Wetland Hydrology Present?

Yes

☒ X

No

Describe Recorded Date (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: WDC Wetland Update City/County: Davis Sampling Date: 5/30/2017  
 Applicant/Owner: UDOT State: UT Sampling Point: MP-05302017-2-OUT  
 Investigators: M. Perkins Section, Township, Range: 21 4N 2W  
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): None Slope(%):           
 Subregion (LRR): D - Western Range and Lat: 41.074306 Long: -112.070671 Datum: WGS84  
 Soil Map Unit Name: Ford loam, 0 to 1 percent slopes NWI Classification: PEM1/USA

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No          (If No, explain in Remarks)  
 Are Vegetation:          Soil          or Hydrology          significantly disturbed? Are "Normal Circumstances" present? Yes X No           
 Are Vegetation:          Soil          or Hydrology          naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <u>X</u>	No <u>        </u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>        </u> No <u>X</u>
Hydric Soil Present?	Yes <u>        </u>	No <u>X</u>	
Wetland Hydrology Present?	Yes <u>        </u>	No <u>X</u>	

Remarks:  
 Sampling point is not a wetland.

## VEGETATION – Use scientific names of plants.

Tree Stratum	(Plot size: )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test Worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>        </u> 1 (A) Total Number of Dominant Species Across All Strata: <u>        </u> 1 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.00000</u> (A/B)
1.	<u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	
2.	<u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	
3.	<u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	
4.	<u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	
				= Total Cover	
<b>Sapling/Shrub Stratum</b> (Plot size: )					
1.	<u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	<b>Prevalence Index worksheet:</b> <u>Total % Cover of:</u> <u>        </u> <u>Multiply by:</u> <u>        </u> OBL species <u>        </u> x1= <u>        </u> FACW species <u>80</u> x2= <u>160</u> FAC species <u>15</u> x3= <u>45</u> FACU species <u>10</u> x4= <u>40</u> UPL species <u>        </u> x5= <u>0</u> Column Totals: <u>105</u> (A) <u>245</u> (B)  <i>Prevalence Index = B/A=</i> <u>2.33</u>
2.	<u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	
3.	<u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	
4.	<u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	
5.	<u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	
				= Total Cover	
<b>Herb Stratum</b> (Plot size: 10)					
1.	<u>Juncus balticus</u>	<u>70</u>	<u>Yes</u>	<u>FACW</u>	<b>Hydrophytic Vegetation Indicators:</b> X Dominance Test is >50% X Prevalence Index is ≤3.0 <sup>1</sup> <u>        </u> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <u>        </u> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. <b>Hydrophytic Vegetation Present?</b> Yes <u>X</u> No <u>        </u>
2.	<u>Distichlis spicata</u>	<u>15</u>	<u>No</u>	<u>FAC</u>	
3.	<u>Festuca pratensis</u>	<u>10</u>	<u>No</u>	<u>FACU</u>	
4.	<u>Carex praegracilis</u>	<u>10</u>	<u>No</u>	<u>FACW</u>	
5.	<u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	
6.	<u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	
7.	<u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	
8.	<u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	
				<u>105</u>	= Total Cover
<b>Woody Vine Stratum</b> (Plot size: )					
1.	<u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	
2.	<u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	
				= Total Cover	
% Bare Ground in Herb Stratum <u>0</u>		% Cover of Biotic Crust <sup>0</sup> <u>        </u>			

Remarks:  
 Vegetation within plot is hydrophytic. Surrounding vegetation in pasture is variable; appears less "wet" to west and southwest with dominant upland species such as wheatgrass.



SOIL

Sampling Point: MP-05302017-2-OUT

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-2	10YR 3/2	100					Organic	
2-6	10YR 4/3	100					Silty Clay	
6-20	7.5YR 5/3	100					Clay Loam	

<sup>1</sup>Type: C= Concentration, D= Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

Indicators for Problematic Hydric Soils<sup>3</sup>:

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) ( <b>LRR C</b> )
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) ( <b>LRR B</b> )
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) ( <b>LRR C</b> )	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) ( <b>LRR D</b> )	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present?

Yes ☐

No ☐

X ☐

Remarks:

No indicators observed in profile.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

Secondary Indicators (2 or more required)

<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) ( <b>Riverine</b> )
<input type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) ( <b>Riverine</b> )
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) ( <b>Riverine</b> )
<input type="checkbox"/> Water Marks (B1) ( <b>Nonriverine</b> )	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) ( <b>Nonriverine</b> )	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input checked="" type="checkbox"/> FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches):

Water Table Present? Yes ☐ No ☒ Depth (inches):

Saturation Present? Yes ☒ No ☐ Depth (inches):  16.0

(includes capillary fringe)

Wetland Hydrology Present? Yes ☐ No ☐ X ☒

Describe Recorded Date (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Appears to be an irrigated pasture.

**Sampling Site: MP-05302017-2-OUT**



**Photo Name:** Photo\_170530120659.jpg

**Direction:**

**Caption:**



**Photo Name:** Photo\_170530120629.jpg

**Direction:**

**Caption:**



# WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: WDC Wetland Update City/County: Davis Sampling Date: 5/23/2017  
 Applicant/Owner: UDOT State: UT Sampling Point: MP-05232017-1-IN  
 Investigators: M. Perkins Section, Township, Range: 25 3N 1W  
 Landform (hillslope, terrace, etc.): Basin Local Relief (concave, convex, none): Concave Slope(%): 3  
 Subregion (LRR): D - Western Range and Lat: 40.964108 Long: -111.892090 Datum: WGS84  
 Soil Map Unit Name: Draper loam, drained, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation: \_\_\_\_\_ Soil \_\_\_\_\_ or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation: \_\_\_\_\_ Soil \_\_\_\_\_ or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <u>X</u>	No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____
Hydric Soil Present?	Yes <u>X</u>	No _____	
Wetland Hydrology Present?	Yes <u>X</u>	No _____	

Remarks:  
 Site has increased hydrology from past so wetland expanded. Remove old out point.

## VEGETATION – Use scientific names of plants.

Tree Stratum	(Plot size: )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test Worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.00000</u> (A/B)
1.	_____	_____	_____	_____	
2.	_____	_____	_____	_____	
3.	_____	_____	_____	_____	
4.	_____	_____	_____	_____	
				= Total Cover	
<b>Sapling/Shrub Stratum</b> (Plot size: )					<b>Prevalence Index worksheet:</b> <u>Total % Cover of:</u> _____ <u>Multiply by:</u> _____ OBL species _____ x1= _____ FACW species <u>20</u> x2= <u>40</u> FAC species <u>45</u> x3= <u>135</u> FACU species _____ x4= <u>0</u> UPL species _____ x5= <u>0</u> Column Totals: <u>65</u> (A) <u>175</u> (B)
1.	_____	_____	_____	_____	
2.	_____	_____	_____	_____	
3.	_____	_____	_____	_____	
4.	_____	_____	_____	_____	
				= Total Cover	
<b>Herb Stratum</b> (Plot size: 5)					<b>Hydrophytic Vegetation Indicators:</b> X Dominance Test is >50% X Prevalence Index is ≤3.0 <sup>1</sup> _____ Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
1.	<u>Dipsacus fullonum</u>	<u>45</u>	<u>Yes</u>	<u>FAC</u>	
2.	<u>Phalaris arundinacea</u>	<u>20</u>	<u>Yes</u>	<u>FACW</u>	
3.	_____	_____	_____	_____	
4.	_____	_____	_____	_____	
5.	_____	_____	_____	_____	$Prevalence\ Index = B/A = \frac{175}{65} = 2.69$
6.	_____	_____	_____	_____	
7.	_____	_____	_____	_____	
8.	_____	_____	_____	_____	
				= Total Cover	
<b>Woody Vine Stratum</b> (Plot size: )					<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1.	_____	_____	_____	_____	
2.	_____	_____	_____	_____	
				= Total Cover	
% Bare Ground in Herb Stratum <u>40</u> % Cover of Biotic Crust <sup>0</sup> _____					
<b>Hydrophytic Vegetation Present?</b> Yes <u>X</u> No _____					

Remarks:

SOIL

Sampling Point: MP-05232017-1-IN

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-14	10YR 2/1	100					Silty Clay	
14-20	10YR4/2	95	7.5YR 4/6	5	C	M	Clay Loam	

<sup>1</sup>Type: C= Concentration, D= Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)
<input checked="" type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	

Indicators for Problematic Hydric Soils<sup>3</sup>:

<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

<b>Restrictive Layer (if present):</b> Type: _____ Depth (inches): _____	<b>Hydric Soil Present?</b> Yes <input checked="" type="checkbox"/> No    _____
--	---

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:				Secondary Indicators (2 or more required)			
Primary Indicators (minimum of one required; check all that apply)							
<input checked="" type="checkbox"/> Surface Water (A1)		<input type="checkbox"/> Salt Crust (B11)		<input type="checkbox"/> Water Marks (B1) (Riverine)			
<input checked="" type="checkbox"/> High Water Tables (A2)		<input type="checkbox"/> Biotic Crust (B12)		<input type="checkbox"/> Sediment Deposits (B2) (Riverine)			
<input checked="" type="checkbox"/> Saturation (A3)		<input type="checkbox"/> Aquatic Invertebrates (B13)		<input type="checkbox"/> Drift Deposits (B3) (Riverine)			
<input type="checkbox"/> Water Marks (B1) (Nonriverine)		<input type="checkbox"/> Hydrogen Sulfide Odor (C1)		<input type="checkbox"/> Drainage Patterns (B10)			
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)		<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)		<input type="checkbox"/> Dry-Season Water Table (C2)			
<input type="checkbox"/> Surface Soil Cracks (B6)		<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)		<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)			
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input type="checkbox"/> Thin Muck Surface (C7)		<input type="checkbox"/> Shallow Aquitard (D3)			
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Other (Explain in Remarks)		<input checked="" type="checkbox"/> FAC-Neutral Test (D5)			
<b>Field Observations:</b>				<b>Wetland Hydrology Present?</b> Yes <input checked="" type="checkbox"/> No    _____			
Surface Water Present?	Yes	<input checked="" type="checkbox"/>	No				
Water Table Present?	Yes	<input checked="" type="checkbox"/>	No				
Saturation Present?	Yes	<input checked="" type="checkbox"/>	No				
(includes capillary fringe)							

Describe Recorded Date (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:



**Sampling Site:** MP-05232017-1-IN



**Photo Name:** Photo\_170523122145.jpg

**Direction:**

**Caption:**



**Photo Name:** Photo\_170523122204.jpg

**Direction:**

**Caption:**

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: WDC Wetland Update City/County: Davis Sampling Date: 6/1/2017  
 Applicant/Owner: UDOT State: UT Sampling Point: MP-06012017-2-OUT-2  
 Investigators: M. Perkins Section, Township, Range: 17 4N 2W  
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): None Slope(%):           
 Subregion (LRR): D - Western Range and Lat: 41.088467 Long: -112.084831 Datum: WGS84  
 Soil Map Unit Name: Ford loam, 0 to 1 percent slopes NWI Classification:         

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No          (If No, explain in Remarks)  
 Are Vegetation:          Soil          or Hydrology          significantly disturbed? Are "Normal Circumstances" present? Yes X No           
 Are Vegetation:          Soil          or Hydrology          naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <u>        </u>	No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>        </u> No <u>X</u>
Hydric Soil Present?	Yes <u>        </u>	No <u>        </u>	
Wetland Hydrology Present?	Yes <u>        </u>	No <u>        </u>	

Remarks:  
 Vegetation is not hydrophytic in this Corps interest area. No soil pit.

## VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test Worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>        </u> 0 (A) Total Number of Dominant Species Across All Strata: <u>        </u> 1 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>        </u> 0.0000000 (A/B)
1. <u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	
2. <u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	
3. <u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	
4. <u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	
			= Total Cover	
<u>Sapling/Shrub Stratum</u> (Plot size: )				<b>Prevalence Index worksheet:</b> <u>Total % Cover of:</u> <u>        </u> <u>Multiply by:</u> <u>        </u> OBL species <u>        </u> x1= <u>        </u> FACW species <u>        </u> x2= <u>        </u> 0 FAC species <u>        </u> 15 x3= <u>        </u> 45 FACU species <u>        </u> 75 x4= <u>        </u> 300 UPL species <u>        </u> 15 x5= <u>        </u> 75 Column Totals: <u>        </u> 105 (A) <u>        </u> 420 (B)  <i>Prevalence Index = B/A=</i> <u>        </u> 4.00
1. <u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	
2. <u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	
3. <u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	
4. <u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	
5. <u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	
			= Total Cover	
<u>Herb Stratum</u> (Plot size: 5)				<b>Hydrophytic Vegetation Indicators:</b> Dominance Test is >50% Prevalence Index is ≤3.0 <sup>1</sup> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.  <b>Hydrophytic Vegetation Present?</b> Yes <u>        </u> No <u>        </u> X <u>        </u>
1. <u>Festuca pratensis</u>	<u>75</u>	<u>Yes</u>	<u>FACU</u>	
2. <u>Trifolium fragiferum</u>	<u>15</u>	<u>No</u>	<u>FAC</u>	
3. <u>Thinopyrum intermedium</u>	<u>15</u>	<u>No</u>	<u>UPL</u>	
4. <u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	
5. <u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	
6. <u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	
7. <u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	
8. <u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	
			= Total Cover	
<u>Woody Vine Stratum</u> (Plot size: )				
1. <u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	
2. <u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	
			= Total Cover	
% Bare Ground in Herb Stratum <u>0</u>		% Cover of Biotic Crust <u>0</u>		

Remarks:



## SOIL

Sampling Point: MP-06012017-2-OUT-2

**Profile Description:** (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

[illegible]

<sup>1</sup>Type: C= Concentration, D= Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

## Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

### Indicators for Problematic Hydric Soils<sup>3</sup>:

_____ Histosol (A1)	_____ Sandy Redox (S5)
_____ Histic Epipedon (A2)	_____ Stripped Matrix (S6)
_____ Black Histic (A3)	_____ Loamy Mucky Mineral (F1)
_____ Hydrogen Sulfide (A4)	_____ Loamy Gleyed Matrix (F2)
_____ Stratified Layers (A5) ( <b>LRR C</b> )	_____ Depleted Matrix (F3)
_____ 1 cm Muck (A9) ( <b>LRR D</b> )	_____ Redox Dark Surface (F6)
_____ Depleted Below Dark Surface (A11)	_____ Depleted Dark Surface (F7)
_____ Thick Dark Surface (A12)	_____ Redox Depressions (F8)
_____ Sandy Mucky Mineral (S1)	_____ Vernal Pools (F9)
_____ Sandy Gleyed Matrix (S4)	

☐ 1 cm Muck (A9) (**LRR C**)  
☐ 2 cm Muck (A10) (**LRR B**)  
☐ Reduced Vertic (F18)  
☐ Red Parent Material (TF2)  
☐ Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

## Restrictive Layer (if present):

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

Hydric Soil Present?	Yes	No
----------------------	-----	----

Remarks:

## HYDROLOGY

### Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

*Secondary Indicators (2 or more required)*

Surface Water (A1)	Salt Crust (B11)
High Water Tables (A2)	Biotic Crust (B12)
Saturation (A3)	Aquatic Invertebrates (B13)
Water Marks (B1) <b>(Nonriverine)</b>	Hydrogen Sulfide Odor (C1)
Sediment Deposits (B2) <b>(Nonriverine)</b>	Oxidized Rhizospheres along Living Roots (C3)
Surface Soil Cracks (B6)	Recent Iron Reduction in Tilled Soils (C6)
Inundation Visible on Aerial Imagery (B7)	Thin Muck Surface (C7)
Water-Stained Leaves (B9)	Other (Explain in Remarks)

- \_\_\_\_\_ Water Marks (B1) (**Riverine**)
- \_\_\_\_\_ Sediment Deposits (B2) (**Riverine**)
- \_\_\_\_\_ Drift Deposits (B3) (**Riverine**)
- \_\_\_\_\_ Drainage Patterns (B10)
- \_\_\_\_\_ Dry-Season Water Table (C2)
- \_\_\_\_\_ Saturation Visible on Aerial Imagery (C9)
- \_\_\_\_\_ Shallow Aquitard (D3)
- \_\_\_\_\_ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present? Yes \_\_\_\_\_ No \_\_\_\_\_ Depth (inches): \_\_\_\_\_  
 Water Table Present? Yes \_\_\_\_\_ No \_\_\_\_\_ Depth (inches): \_\_\_\_\_  
 Saturation Present? Yes \_\_\_\_\_ No \_\_\_\_\_ Depth (inches): \_\_\_\_\_  
 (includes capillary fringe)

Wetland Hydrology Present?	Yes	No
----------------------------	-----	----

Describe Recorded Date (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**Sampling Site:** MP-06012017-2-OUT-2



**Photo Name:** Photo\_170601093538.jpg

**Direction:**

**Caption:**



# WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: WDC Wetland Update City/County: Davis Sampling Date: 5/24/2017  
 Applicant/Owner: UDOT State: UT Sampling Point: MP-05242017-1-OUT  
 Investigators: M. Perkins Section, Township, Range: 36 3N 1W  
 Landform (hillslope, terrace, etc.): Valley Local Relief (concave, convex, none): Convex Slope(%): 3  
 Subregion (LRR): D - Western Range and Lat: 40.955261 Long: -111.892174 Datum: WGS84  
 Soil Map Unit Name: Airport silt loam, 0 to 2 percent slopes NWI Classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation: \_\_\_\_\_ Soil \_\_\_\_\_ or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation: \_\_\_\_\_ Soil \_\_\_\_\_ or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <u>X</u>	No _____	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u>
Hydric Soil Present?	Yes _____	No <u>X</u>	
Wetland Hydrology Present?	Yes _____	No <u>X</u>	

Remarks:  
 Out point upslope from wetland.

## VEGETATION – Use scientific names of plants.

Tree Stratum	(Plot size: )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test Worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: _____ 1 (A) Total Number of Dominant Species Across All Strata: _____ 1 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ 100.00000 (A/B)
1.	_____	_____	_____	_____	
2.	_____	_____	_____	_____	
3.	_____	_____	_____	_____	
4.	_____	_____	_____	_____	
				= Total Cover	
<b>Sapling/Shrub Stratum</b> (Plot size: )					<b>Prevalence Index worksheet:</b> <b>Total % Cover of:</b> _____ <b>Multiply by:</b> _____ OBL species _____ x1= _____ FACW species _____ 15 x2= _____ 30 FAC species _____ 35 x3= _____ 105 FACU species _____ x4= _____ 0 UPL species _____ 30 x5= _____ 150 Column Totals: _____ 80 (A) _____ 285 (B)
1.	_____	_____	_____	_____	
2.	_____	_____	_____	_____	
3.	_____	_____	_____	_____	
4.	_____	_____	_____	_____	
				= Total Cover	
<b>Herb Stratum</b> (Plot size: 5)					<b>Prevalence Index = B/A =</b> _____ 3.56
1.	<u>Dipsacus fullonum</u>	<u>35</u>	<u>Yes</u>	<u>FAC</u>	
2.	<u>Juncus balticus</u>	<u>15</u>	<u>No</u>	<u>FACW</u>	
3.	<u>Cardaria draba</u>	<u>15</u>	<u>No</u>	<u>UPL</u>	
4.	<u>Isatis tinctoria</u>	<u>15</u>	<u>No</u>	<u>UPL</u>	
5.	_____	_____	_____	_____	<b>Hydrophytic Vegetation Indicators:</b> X Dominance Test is >50% X Prevalence Index is ≤3.0 <sup>1</sup> _____ Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
6.	_____	_____	_____	_____	
7.	_____	_____	_____	_____	
8.	_____	_____	_____	_____	
				= Total Cover	
<b>Woody Vine Stratum</b> (Plot size: )					<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1.	_____	_____	_____	_____	
2.	_____	_____	_____	_____	
				= Total Cover	
% Bare Ground in Herb Stratum <u>15</u> % Cover of Biotic Crust <sup>0</sup> _____					
<b>Hydrophytic Vegetation Present?</b> Yes <u>X</u> No _____					

Remarks:  
 Weedy vegetation.

SOIL

Sampling Point: MP-05242017-1-OUT

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-14	10YR 3/2	100					Loam	
14-20	10YR 4/2	100					Silt Loam	

<sup>1</sup>Type: C= Concentration, D= Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

Indicators for Problematic Hydric Soils<sup>3</sup>:

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) ( <b>LRR C</b> )
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) ( <b>LRR B</b> )
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) ( <b>LRR C</b> )	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) ( <b>LRR D</b> )	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present?

Yes ☐

No ☐

X ☐

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

Secondary Indicators (2 or more required)

<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) ( <b>Riverine</b> )
<input type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) ( <b>Riverine</b> )
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) ( <b>Riverine</b> )
<input type="checkbox"/> Water Marks (B1) ( <b>Nonriverine</b> )	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) ( <b>Nonriverine</b> )	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input checked="" type="checkbox"/> FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches):

Water Table Present? Yes ☐ No ☒ Depth (inches):

Saturation Present? Yes ☐ No ☒ Depth (inches):

(includes capillary fringe)

Wetland Hydrology Present? Yes ☐ No ☐ X ☒

Describe Recorded Date (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Soils moist but not saturated.



**Sampling Site: MP-05242017-1-OUT**



**Photo Name:** Photo\_170524153245.jpg

**Direction:**

**Caption:**



**Photo Name:** Photo\_170524153259.jpg

**Direction:**

**Caption:**

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: WDC Wetland Update City/County: Davis Sampling Date: 5/25/2017  
 Applicant/Owner: UDOT State: UT Sampling Point: MP-05252017-1-IN  
 Investigators: M. Perkins Section, Township, Range: 36 3N 1W  
 Landform (hillslope, terrace, etc.): Basin Local Relief (concave, convex, none): Convex Slope(%): 1  
 Subregion (LRR): D - Western Range and Lat: 40.958183 Long: -111.901482 Datum: WGS84  
 Soil Map Unit Name: Airport silt loam, 0 to 2 percent slopes NWI Classification: PEM1A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No        (If No, explain in Remarks)  
 Are Vegetation:        Soil        or Hydrology        significantly disturbed? Are "Normal Circumstances" present? Yes X No         
 Are Vegetation:        Soil        or Hydrology        naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <u>X</u>	No <u>      </u>	Is the Sampled Area within a Wetland?	Yes <u>X</u>	No <u>      </u>
Hydric Soil Present?	Yes <u>X</u>	No <u>      </u>			
Wetland Hydrology Present?	Yes <u>X</u>	No <u>      </u>			

Remarks:  
 Sampling point is a wet meadow wetland with some tamarisk invasion.

## VEGETATION – Use scientific names of plants.

Tree Stratum	(Plot size: )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test Worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>66.660000</u> (A/B)
1.					
2.					
3.					
4.					
				= Total Cover	
<b>Sapling/Shrub Stratum</b> (Plot size: )					
1.	Tamarix ramosissima	45	Yes	FAC	<b>Prevalence Index worksheet:</b> Total % Cover of: <u>      </u> Multiply by: OBL species <u>      </u> x1= <u>      </u> FACW species <u>      </u> x2= <u>0</u> FAC species <u>95</u> x3= <u>285</u> FACU species <u>      </u> x4= <u>0</u> UPL species <u>35</u> x5= <u>175</u> Column Totals: <u>130</u> (A) <u>460</u> (B)  <i>Prevalence Index = B/A=</i> <u>3.54</u>
2.					
3.					
4.					
5.					
				= Total Cover	
<b>Herb Stratum</b> (Plot size: 5)					
1.	Distichlis spicata	40	Yes	FAC	<b>Hydrophytic Vegetation Indicators:</b> X Dominance Test is >50% Prevalence Index is ≤3.0 <sup>1</sup> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.  <b>Hydrophytic Vegetation</b> Yes <u>X</u> No <u>      </u> <b>Present?</b>
2.	Cardaria draba	35	Yes	UPL	
3.	Hordeum jubatum	10	No	FAC	
4.					
5.					
6.					
7.					
8.					
				= Total Cover	
<b>Woody Vine Stratum</b> (Plot size: )					
1.					
2.					
				= Total Cover	
% Bare Ground in Herb Stratum		<u>0</u>	% Cover of Biotic Crust		<u>0</u>

Remarks:  
 Vegetation community is hydrophytic despite increasing hoary cress here.



SOIL

Sampling Point: MP-05252017-1-IN

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-2	10YR 4/2	100					Sandy Loam	
2-10	10YR 3/2	95	G1 2.5/1	5	C	M	Loam	Mn Concentrations
10-14	10YR 5/2	100					Clay Loam	
14-20	10YR 6/2	100					Clay Loam	

<sup>1</sup>Type: C= Concentration, D= Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

Indicators for Problematic Hydric Soils<sup>3</sup>:

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) ( <b>LRR C</b> )
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) ( <b>LRR B</b> )
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) ( <b>LRR C</b> )	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) ( <b>LRR D</b> )	<input checked="" type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present?

Yes

☒ X

No

Remarks:

Profile appears to be hydric.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (2 or more required)	
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) ( <b>Riverine</b> )	
<input type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) ( <b>Riverine</b> )	
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) ( <b>Riverine</b> )	
<input type="checkbox"/> Water Marks (B1) ( <b>Nonriverine</b> )	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)	
<input type="checkbox"/> Sediment Deposits (B2) ( <b>Nonriverine</b> )	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)	
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)	
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)	
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> FAC-Neutral Test (D5)	

Field Observations:

Surface Water Present? Yes ☐ No ☒ X Depth (inches):

Water Table Present? Yes ☐ No ☒ X Depth (inches):

Saturation Present? Yes ☒ X No ☐ Depth (inches):  4.0

(includes capillary fringe)

Wetland Hydrology Present?

Yes

☒ X

No

Describe Recorded Date (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Site drying out since visited earlier in month but still indicates hydrology.

**Sampling Site:** MP-05252017-1-IN



**Photo Name:** Photo\_170525142341.jpg

**Direction:**

**Caption:**



**Photo Name:** Photo\_170525142403.jpg

**Direction:**

**Caption:**



# WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: WDC Wetland Update City/County: Davis Sampling Date: 5/31/2017  
 Applicant/Owner: UDOT State: UT Sampling Point: MP-05312016-1-OUT  
 Investigators: M. Perkins Section, Township, Range: 21 4N 2W  
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): Convex Slope(%): 2  
 Subregion (LRR): D - Western Range and Lat: 41.073868 Long: -112.066734 Datum: WGS84  
 Soil Map Unit Name: Ford loam, 0 to 1 percent slopes NWI Classification: PEM1C

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No      (If No, explain in Remarks)  
 Are Vegetation:      Soil      or Hydrology      significantly disturbed? Are "Normal Circumstances" present? Yes X No       
 Are Vegetation:      Soil      or Hydrology      naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <u>X</u>	No <u>    </u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>    </u> No <u>X</u>
Hydric Soil Present?	Yes <u>    </u>	No <u>X</u>	
Wetland Hydrology Present?	Yes <u>    </u>	No <u>X</u>	

Remarks:  
 Sampling point up subtle slope from in point is not a wetland.

## VEGETATION – Use scientific names of plants.

Tree Stratum	(Plot size: )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test Worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.00000</u> (A/B)
1.					
2.					
3.					
4.					
				= Total Cover	
<b>Sapling/Shrub Stratum</b> (Plot size: )					<b>Prevalence Index worksheet:</b> <u>Total % Cover of:</u> <u>    </u> <u>Multiply by:</u> <u>    </u> OBL species <u>    </u> x1= <u>    </u> FACW species <u>65</u> x2= <u>130</u> FAC species <u>10</u> x3= <u>30</u> FACU species <u>15</u> x4= <u>60</u> UPL species <u>    </u> x5= <u>0</u> Column Totals: <u>90</u> (A) <u>220</u> (B)  <i>Prevalence Index = B/A= 2.44</i>
1.					
2.					
3.					
4.					
				= Total Cover	
<b>Herb Stratum</b> (Plot size: 5)					<b>Hydrophytic Vegetation Indicators:</b> X Dominance Test is >50% X Prevalence Index is ≤3.0 <sup>1</sup> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.  <b>Hydrophytic Vegetation Present?</b> Yes <u>X</u> No <u>    </u>
1.	Carex praegracilis	35	Yes	FACW	
2.	Agrostis stolonifera	30	Yes	FACW	
3.	Festuca pratensis	15	No	FACU	
4.	Trifolium fragiferum	10	No	FAC	
5.					
6.					
7.					
8.					
				90 = Total Cover	
<b>Woody Vine Stratum</b> (Plot size: )					
1.					
2.					
				= Total Cover	
% Bare Ground in Herb Stratum <u>10</u>		% Cover of Biotic Crust <sup>0</sup> <u>    </u>			

Remarks:

SOIL

Sampling Point: MP-05312016-1-OUT

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-2	10YR 4/3	100					Organic	
2-8	10YR 4/2	100					Silty Clay	
8-20	10YR 4/3	100					Clay Loam	

<sup>1</sup>Type: C= Concentration, D= Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

Indicators for Problematic Hydric Soils<sup>3</sup>:

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) ( <b>LRR C</b> )
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) ( <b>LRR B</b> )
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) ( <b>LRR C</b> )	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) ( <b>LRR D</b> )	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present?

Yes ☐ No ☐ X ☒

Remarks:

No indicators observed in profile.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

Secondary Indicators (2 or more required)

<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) ( <b>Riverine</b> )
<input type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) ( <b>Riverine</b> )
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) ( <b>Riverine</b> )
<input type="checkbox"/> Water Marks (B1) ( <b>Nonriverine</b> )	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) ( <b>Nonriverine</b> )	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input checked="" type="checkbox"/> FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches):

Water Table Present? Yes ☐ No ☒ Depth (inches):

Saturation Present? Yes ☐ No ☒ Depth (inches):

(includes capillary fringe)

Wetland Hydrology Present? Yes ☐ No ☐ X ☒

Describe Recorded Date (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Soils slightly moist but no saturation.



**Sampling Site: MP-05312016-1-OUT**



**Photo Name:** Photo\_170531113950.jpg

**Direction:**

**Caption:**



**Photo Name:** Photo\_170531114006.jpg

**Direction:**

**Caption:**

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: WDC Wetland Update City/County: Davis Sampling Date: 6/1/2017  
 Applicant/Owner: UDOT State: UT Sampling Point: MP-06012017-3-OUT-6  
 Investigators: M. Perkins Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Valley Local Relief (concave, convex, none): None Slope(%): \_\_\_\_\_  
 Subregion (LRR): D - Western Range and Lat: 41.110592 Long: -112.101982 Datum: WGS84  
 Soil Map Unit Name: \_\_\_\_\_ NWI Classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation: \_\_\_\_\_ Soil \_\_\_\_\_ or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes \_\_\_\_\_ No \_\_\_\_\_  
 Are Vegetation: \_\_\_\_\_ Soil \_\_\_\_\_ or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u>
Hydric Soil Present?	Yes _____	No _____	
Wetland Hydrology Present?	Yes _____	No _____	

Remarks:  
 Vegetation is not hydrophytic. No soil pit.

## VEGETATION – Use scientific names of plants.

Tree Stratum	(Plot size: )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test Worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0.0000000</u> (A/B)
1.	_____	_____	_____	_____	
2.	_____	_____	_____	_____	
3.	_____	_____	_____	_____	
4.	_____	_____	_____	_____	
				= Total Cover	
<b>Sapling/Shrub Stratum</b> (Plot size: )					<b>Prevalence Index worksheet:</b> <u>Total % Cover of:</u> _____ <u>Multiply by:</u> _____ OBL species _____ x1= _____ FACW species _____ x2= <u>0</u> FAC species <u>5</u> x3= <u>15</u> FACU species _____ x4= <u>0</u> UPL species <u>100</u> x5= <u>500</u> Column Totals: <u>105</u> (A) <u>515</u> (B)
1.	_____	_____	_____	_____	
2.	_____	_____	_____	_____	
3.	_____	_____	_____	_____	
4.	_____	_____	_____	_____	
				= Total Cover	
<b>Herb Stratum</b> (Plot size: )					<b>Hydrophytic Vegetation Indicators:</b> Dominance Test is >50% Prevalence Index is ≤3.0 <sup>1</sup> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
1.	<u>Thinopyrum intermedium</u>	<u>90</u>	<u>Yes</u>	<u>UPL</u>	
2.	<u>Bromus racemosus</u>	<u>10</u>	<u>No</u>	<u>UPL</u>	
3.	<u>Distichlis spicata</u>	<u>5</u>	<u>No</u>	<u>FAC</u>	
4.	_____	_____	_____	_____	
5.	_____	_____	_____	_____	$Prevalence Index = B/A = \frac{515}{105} = 4.90$
6.	_____	_____	_____	_____	
7.	_____	_____	_____	_____	
8.	_____	_____	_____	_____	
				= Total Cover	
<b>Woody Vine Stratum</b> (Plot size: )					<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1.	_____	_____	_____	_____	
2.	_____	_____	_____	_____	
				= Total Cover	
% Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____					

Remarks:



SOIL

Sampling Point: MP-06012017-3-OUT-6

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		

<sup>1</sup>Type: C= Concentration, D= Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

Indicators for Problematic Hydric Soils<sup>3</sup>:

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) ( <b>LRR C</b> )
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) ( <b>LRR B</b> )
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) ( <b>LRR C</b> )	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) ( <b>LRR D</b> )	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present?

Yes ☐ No ☐

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

Secondary Indicators (2 or more required)

<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) ( <b>Riverine</b> )
<input type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) ( <b>Riverine</b> )
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) ( <b>Riverine</b> )
<input type="checkbox"/> Water Marks (B1) ( <b>Nonriverine</b> )	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) ( <b>Nonriverine</b> )	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ☐ No ☐ Depth (inches):

Water Table Present? Yes ☐ No ☐ Depth (inches):

Saturation Present? Yes ☐ No ☐ Depth (inches):

(includes capillary fringe)

Wetland Hydrology Present? Yes ☐ No ☐

Describe Recorded Date (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**Sampling Site:** MP-06012017-3-OUT-6



**Photo Name:** Photo\_170601144408.jpg

**Direction:**

**Caption:**



# WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: WDC Wetland Update City/County: Davis Sampling Date: 5/31/2017  
 Applicant/Owner: UDOT State: UT Sampling Point: MP-05312016-1-IN-2  
 Investigators: M. Perkins Section, Township, Range: 21 4N 2W  
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): Concave Slope(%): 2  
 Subregion (LRR): D - Western Range and Lat: 41.073696 Long: -112.068298 Datum: WGS84  
 Soil Map Unit Name: Ford loam, 0 to 1 percent slopes NWI Classification: PEM1/USA

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No        (If No, explain in Remarks)  
 Are Vegetation:        Soil        or Hydrology        significantly disturbed? Are "Normal Circumstances" present? Yes X No         
 Are Vegetation:        Soil        or Hydrology        naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <u>X</u>	No <u>      </u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No <u>      </u>
Hydric Soil Present?	Yes <u>X</u>	No <u>      </u>	
Wetland Hydrology Present?	Yes <u>X</u>	No <u>      </u>	

Remarks:  
 Sampling point indicates low area in pasture is a wetland.

## VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test Worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.00000</u> (A/B)
1. <u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>	
2. <u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>	
3. <u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>	
4. <u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>	
			= Total Cover	
<u>Sapling/Shrub Stratum</u> (Plot size: )				<b>Prevalence Index worksheet:</b> <u>Total % Cover of:</u> <u>      </u> <u>Multiply by:</u> <u>      </u> OBL species <u>20</u> x1= <u>20</u> FACW species <u>35</u> x2= <u>70</u> FAC species <u>10</u> x3= <u>30</u> FACU species <u>10</u> x4= <u>40</u> UPL species <u>      </u> x5= <u>0</u> Column Totals: <u>75</u> (A) <u>160</u> (B)  <i>Prevalence Index = B/A=</i> <u>2.13</u>
1. <u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>	
2. <u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>	
3. <u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>	
4. <u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>	
5. <u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>	
			= Total Cover	
<u>Herb Stratum</u> (Plot size: 5)				<b>Hydrophytic Vegetation Indicators:</b> X Dominance Test is >50% X Prevalence Index is ≤3.0 <sup>1</sup> <u>      </u> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <u>      </u> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. <b>Hydrophytic Vegetation Present?</b> Yes <u>X</u> No <u>      </u>
1. <u>Juncus balticus</u>	<u>20</u>	<u>Yes</u>	<u>FACW</u>	
2. <u>Carex nebrascensis</u>	<u>20</u>	<u>Yes</u>	<u>OBL</u>	
3. <u>Agrostis stolonifera</u>	<u>15</u>	<u>Yes</u>	<u>FACW</u>	
4. <u>Festuca pratensis</u>	<u>10</u>	<u>No</u>	<u>FACU</u>	
5. <u>Poa palustris</u>	<u>5</u>	<u>No</u>	<u>FAC</u>	
6. <u>Trifolium fragiferum</u>	<u>5</u>	<u>No</u>	<u>FAC</u>	
7. <u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>	
8. <u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>	
			= Total Cover	
<u>Woody Vine Stratum</u> (Plot size: )				
1. <u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>	
2. <u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>	
			= Total Cover	
% Bare Ground in Herb Stratum <u>20</u>	% Cover of Biotic Crust <sup>0</sup> <u>      </u>			

Remarks:  
 Horses grazing this pasture.

SOIL

Sampling Point: MP-05312016-1-IN-2

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-3	10YR 4/3	100					Organic	
3-12	10YR 4/2	85	10 YR 5/8	5	C	M	Silty Clay	Add 10YR 6/1 D M 10%

<sup>1</sup>Type: C= Concentration, D= Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

Indicators for Problematic Hydric Soils<sup>3</sup>:

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) ( <b>LRR C</b> )
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) ( <b>LRR B</b> )
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) ( <b>LRR C</b> )	<input checked="" type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) ( <b>LRR D</b> )	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes ☒ No ☐

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

Secondary Indicators (2 or more required)

<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) ( <b>Riverine</b> )
<input type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) ( <b>Riverine</b> )
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) ( <b>Riverine</b> )
<input type="checkbox"/> Water Marks (B1) ( <b>Nonriverine</b> )	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) ( <b>Nonriverine</b> )	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input checked="" type="checkbox"/> FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches):

Water Table Present? Yes ☐ No ☒ Depth (inches):

Saturation Present? Yes ☒ No ☐ Depth (inches):  10.0

(includes capillary fringe)

Wetland Hydrology Present? Yes ☒ No ☐

Describe Recorded Date (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:



**Sampling Site:** MP-05312016-1-IN-2



**Photo Name:** Photo\_170531120947.jpg

**Direction:**

**Caption:**



**Photo Name:** Photo\_170531120936.jpg

**Direction:**

**Caption:**

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: WDC Wetland Update City/County: Davis Sampling Date: 5/30/2017  
 Applicant/Owner: UDOT State: UT Sampling Point: MP-05302017-1-IN  
 Investigators: M. Perkins Section, Township, Range: 23 4N 2W  
 Landform (hillslope, terrace, etc.): Terrace Tread Local Relief (concave, convex, none): Concave Slope(%): 1  
 Subregion (LRR): D - Western Range and Lat: 41.060398 Long: -112.041512 Datum: WGS84  
 Soil Map Unit Name: Ford loam, shallow water table, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation: \_\_\_\_\_ Soil \_\_\_\_\_ or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation: \_\_\_\_\_ Soil \_\_\_\_\_ or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <u>X</u>	No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____
Hydric Soil Present?	Yes <u>X</u>	No _____	
Wetland Hydrology Present?	Yes <u>X</u>	No _____	

Remarks:  
 Wetland extends from west to upslope near this sampling point.

## VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test Worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.00000</u> (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
			= Total Cover	
<u>Sapling/Shrub Stratum</u> (Plot size: )				<b>Prevalence Index worksheet:</b> <u>Total % Cover of:</u> _____ <u>Multiply by:</u> _____ OBL species _____ x1= _____ FACW species <u>100</u> x2= <u>200</u> FAC species <u>20</u> x3= <u>60</u> FACU species _____ x4= <u>0</u> UPL species _____ x5= <u>0</u> Column Totals: <u>120</u> (A) <u>260</u> (B)  <i>Prevalence Index = B/A=</i> <u>2.17</u>
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
			= Total Cover	
<u>Herb Stratum</u> (Plot size: 5)				<b>Hydrophytic Vegetation Indicators:</b> X Dominance Test is >50% X Prevalence Index is ≤3.0 <sup>1</sup> _____ Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
1. <u>Juncus balticus</u>	<u>90</u>	<u>Yes</u>	<u>FACW</u>	
2. <u>Dipsacus fullonum</u>	<u>20</u>	<u>No</u>	<u>FAC</u>	
3. <u>Conium maculatum</u>	<u>10</u>	<u>No</u>	<u>FACW</u>	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
			<u>120</u> = Total Cover	
<u>Woody Vine Stratum</u> (Plot size: )				<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
			= Total Cover	
% Bare Ground in Herb Stratum <u>0</u>		% Cover of Biotic Crust <u>0</u>		<b>Hydrophytic Vegetation</b> Yes <u>X</u> No _____ <b>Present?</b>

Remarks:  
 Vegetation is hydrophytic.



SOIL

Sampling Point: MP-05302017-1-IN

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-4	10YR 3/2	100					Silt Loam	
4-20			7.5YR 5/8	5	C	M		
4-20	10YR 3/2	75	10YR 7/2	20	D	M	Loam	

<sup>1</sup>Type: C= Concentration, D= Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

Indicators for Problematic Hydric Soils<sup>3</sup>:

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) ( <b>LRR C</b> )
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) ( <b>LRR B</b> )
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) ( <b>LRR C</b> )	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) ( <b>LRR D</b> )	<input checked="" type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input checked="" type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes ☒ No ☐

Remarks:

Depleted and redox dark surface.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (2 or more required)	
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) ( <b>Riverine</b> )	
<input type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) ( <b>Riverine</b> )	
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) ( <b>Riverine</b> )	
<input type="checkbox"/> Water Marks (B1) ( <b>Nonriverine</b> )	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)	
<input type="checkbox"/> Sediment Deposits (B2) ( <b>Nonriverine</b> )	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)	
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)	
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)	
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input checked="" type="checkbox"/> FAC-Neutral Test (D5)	

Field Observations:

Surface Water Present? Yes ☐ No ☐ Depth (inches):

Water Table Present? Yes ☒ No ☐ Depth (inches):  5.0

Saturation Present? Yes ☒ No ☐ Depth (inches):  0.0

(includes capillary fringe)

Wetland Hydrology Present? Yes ☒ No ☐

Describe Recorded Date (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Saturated to surface.

**Sampling Site:** MP-05302017-1-IN



**Photo Name:** Photo\_170530084512.jpg

**Direction:**

**Caption:**



**Photo Name:** Photo\_170530084457.jpg

**Direction:**

**Caption:**



# WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: WDC Wetland Update City/County: Davis Sampling Date: 6/1/2017  
 Applicant/Owner: UDOT State: UT Sampling Point: MP-05312016-4-OUT-2  
 Investigators: M. Perkins Section, Township, Range: 16 4N 2W  
 Landform (hillslope, terrace, etc.): Valley Local Relief (concave, convex, none): Concave Slope(%): 1  
 Subregion (LRR): D - Western Range and Lat: 41.085793 Long: -112.078316 Datum: WGS84  
 Soil Map Unit Name: Ford loam, shallow water table, 0 to 1 percent slopes NWI Classification: PEM1C

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No      (If No, explain in Remarks)  
 Are Vegetation:      Soil      or Hydrology      significantly disturbed? Are "Normal Circumstances" present? Yes X No       
 Are Vegetation:      Soil      or Hydrology      naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <u>    </u>	No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>    </u> No <u>X</u>
Hydric Soil Present?	Yes <u>    </u>	No <u>X</u>	
Wetland Hydrology Present?	Yes <u>    </u>	No <u>X</u>	

Remarks:  
 Sampling point is not a wetland.

## VEGETATION – Use scientific names of plants.

Tree Stratum	(Plot size: )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test Worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.00000</u> (A/B)
1.					
2.					
3.					
4.					
					= Total Cover
<b>Sapling/Shrub Stratum</b> (Plot size: )					
1.					<b>Prevalence Index worksheet:</b> <u>Total % Cover of:</u> <u>    </u> <u>Multiply by:</u> <u>    </u> OBL species <u>    </u> x1= <u>    </u> FACW species <u>    </u> x2= <u>0</u> FAC species <u>95</u> x3= <u>285</u> FACU species <u>    </u> x4= <u>0</u> UPL species <u>    </u> x5= <u>0</u> Column Totals: <u>95</u> (A) <u>285</u> (B)  <i>Prevalence Index = B/A=</i> <u>3.00</u>
2.					
3.					
4.					
5.					
					= Total Cover
<b>Herb Stratum</b> (Plot size: 5)					
1.	Dipsacus fullonum	80	Yes	FAC	<b>Hydrophytic Vegetation Indicators:</b> X Dominance Test is >50% X Prevalence Index is ≤3.0 <sup>1</sup> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. <b>Hydrophytic Vegetation Present?</b> Yes <u>    </u> No <u>X</u>
2.	Lepidium latifolium	15	No	FAC	
3.					
4.					
5.					
6.					
7.					
8.					
					= Total Cover
<b>Woody Vine Stratum</b> (Plot size: )					
1.					<b>Hydrophytic Vegetation Present?</b> Yes <u>    </u> No <u>X</u>
2.					
					= Total Cover
% Bare Ground in Herb Stratum		15	% Cover of Biotic Crust <sup>0</sup>		

Remarks:

SOIL

Sampling Point: MP-05312016-4-OUT-2

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-2	10YR 3/2	100					Loam	
2-20	7.5YR 4/2	100					Silt Loam	

<sup>1</sup>Type: C= Concentration, D= Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

Indicators for Problematic Hydric Soils<sup>3</sup>:

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) ( <b>LRR C</b> )
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) ( <b>LRR B</b> )
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) ( <b>LRR C</b> )	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) ( <b>LRR D</b> )	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present?

Yes ☐

No ☐

X ☐

Remarks:

No indicators observed in profile.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

Secondary Indicators (2 or more required)

<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) ( <b>Riverine</b> )
<input type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) ( <b>Riverine</b> )
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) ( <b>Riverine</b> )
<input type="checkbox"/> Water Marks (B1) ( <b>Nonriverine</b> )	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) ( <b>Nonriverine</b> )	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ☐ No ☒ X Depth (inches):

Water Table Present? Yes ☐ No ☒ X Depth (inches):

Saturation Present? Yes ☒ X No ☐ Depth (inches):  16.0

(includes capillary fringe)

Wetland Hydrology Present? Yes ☐ No ☐ X ☒

Describe Recorded Date (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Not saturated until 16 inches.



**Sampling Site:** MP-05312016-4-OUT-2



**Photo Name:** Photo\_170531182805.jpg

**Direction:**

**Caption:**



**Photo Name:** Photo\_170531182822.jpg

**Direction:**

**Caption:**

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: WDC Wetland Update City/County: Davis Sampling Date: 6/1/2017  
 Applicant/Owner: UDOT State: UT Sampling Point: MP-06012017-3-OUT-7  
 Investigators: M. Perkins Section, Township, Range: 05 4N 2W  
 Landform (hillslope, terrace, etc.): Footslope Local Relief (concave, convex, none): Convex Slope(%): 2  
 Subregion (LRR): D - Western Range and Lat: 41.104061 Long: -112.094330 Datum: WGS84  
 Soil Map Unit Name: Ford loam, shallow water table, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation: \_\_\_\_\_ Soil \_\_\_\_\_ or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation: \_\_\_\_\_ Soil \_\_\_\_\_ or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b>	Yes _____ No <u>X</u>
Hydric Soil Present?	Yes _____	No _____		
Wetland Hydrology Present?	Yes _____	No _____		

Remarks:  
 Upland vegetation so no soil pit.

## VEGETATION – Use scientific names of plants.

Tree Stratum	(Plot size: )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test Worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: _____ 0 (A) Total Number of Dominant Species Across All Strata: _____ 2 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ 0.0000000 (A/B)
1.	_____	_____	_____	_____	
2.	_____	_____	_____	_____	
3.	_____	_____	_____	_____	
4.	_____	_____	_____	_____	<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: OBL species _____ x1= _____ FACW species _____ 5 x2= _____ 10 FAC species _____ x3= _____ 0 FACU species _____ 25 x4= _____ 100 UPL species _____ 50 x5= _____ 250 Column Totals: _____ 80 (A) _____ 360 (B)  <i>Prevalence Index = B/A=</i> _____ 4.50
= Total Cover					
_____					
_____					
<b>Sapling/Shrub Stratum</b> (Plot size: )					
1.	_____	_____	_____	_____	
2.	_____	_____	_____	_____	
3.	_____	_____	_____	_____	
4.	_____	_____	_____	_____	
5.	_____	_____	_____	_____	
= Total Cover					
_____					
<b>Herb Stratum</b> (Plot size: 5)					
1.	<u>Thinopyrum intermedium</u>	<u>50</u>	<u>Yes</u>	<u>UPL</u>	
2.	<u>Festuca pratensis</u>	<u>25</u>	<u>Yes</u>	<u>FACU</u>	
3.	<u>Juncus balticus</u>	<u>5</u>	<u>No</u>	<u>FACW</u>	
4.	_____	_____	_____	_____	
5.	_____	_____	_____	_____	
6.	_____	_____	_____	_____	
7.	_____	_____	_____	_____	
8.	_____	_____	_____	_____	
= Total Cover					
_____					
_____					
<b>Woody Vine Stratum</b> (Plot size: )					
1.	_____	_____	_____	_____	
2.	_____	_____	_____	_____	
= Total Cover					
% Bare Ground in Herb Stratum <u>30</u> % Cover of Biotic Crust <sup>0</sup> _____					

Remarks:



SOIL

Sampling Point: MP-06012017-3-OUT-7

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		

<sup>1</sup>Type: C= Concentration, D= Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

Indicators for Problematic Hydric Soils<sup>3</sup>:

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) ( <b>LRR C</b> )
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) ( <b>LRR B</b> )
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) ( <b>LRR C</b> )	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) ( <b>LRR D</b> )	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present?

Yes ☐ No ☐

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

Secondary Indicators (2 or more required)

<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) ( <b>Riverine</b> )
<input type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) ( <b>Riverine</b> )
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) ( <b>Riverine</b> )
<input type="checkbox"/> Water Marks (B1) ( <b>Nonriverine</b> )	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) ( <b>Nonriverine</b> )	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ☐ No ☐ Depth (inches):

Water Table Present? Yes ☐ No ☐ Depth (inches):

Saturation Present? Yes ☐ No ☐ Depth (inches):

(includes capillary fringe)

Wetland Hydrology Present? Yes ☐ No ☐

Describe Recorded Date (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**Sampling Site:** MP-06012017-3-OUT-7



**Photo Name:** Photo\_170601151553.jpg

**Direction:**

**Caption:**



# WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: WDC Wetland Update City/County: Davis Sampling Date: 6/1/2017  
 Applicant/Owner: UDOT State: UT Sampling Point: MP-06012017-1-OUT  
 Investigators: M. Perkins Section, Township, Range: 08 4N 2W  
 Landform (hillslope, terrace, etc.): Valley Local Relief (concave, convex, none): Convex Slope(%): 8  
 Subregion (LRR): D - Western Range and Lat: 41.096207 Long: -112.085075 Datum: WGS84  
 Soil Map Unit Name: Ford loam, shallow water table, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation: \_\_\_\_\_ Soil \_\_\_\_\_ or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation: \_\_\_\_\_ Soil \_\_\_\_\_ or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u>
Hydric Soil Present?	Yes _____	No _____	
Wetland Hydrology Present?	Yes _____	No _____	

Remarks:  
 Out point in upland vegetation so no soil pit.

## VEGETATION – Use scientific names of plants.

Tree Stratum	(Plot size: )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test Worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: _____ 0 (A) Total Number of Dominant Species Across All Strata: _____ 1 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ 0.0000000 (A/B)
1.	_____	_____	_____	_____	
2.	_____	_____	_____	_____	
3.	_____	_____	_____	_____	
4.	_____	_____	_____	_____	<b>Prevalence Index worksheet:</b> <b>Total % Cover of:</b> _____ <b>Multiply by:</b> _____ OBL species _____ x1= _____ FACW species _____ 10 x2= _____ 20 FAC species _____ x3= _____ 0 FACU species _____ x4= _____ 0 UPL species _____ 110 x5= _____ 550 Column Totals: _____ 120 (A) _____ 570 (B)  <i>Prevalence Index = B/A=</i> _____ 4.75
= Total Cover					
_____					
_____					
<b>Sapling/Shrub Stratum</b> (Plot size: )					
1.	_____	_____	_____	_____	
2.	_____	_____	_____	_____	
3.	_____	_____	_____	_____	
4.	_____	_____	_____	_____	
5.	_____	_____	_____	_____	
= Total Cover					
_____					
<b>Herb Stratum</b> (Plot size: 5)					
1.	Thinopyrum intermedium	90	Yes	UPL	
2.	Cardaria draba	20	No	UPL	
3.	Juncus balticus	5	No	FACW	
4.	Phragmites australis	5	No	FACW	
5.	_____	_____	_____	_____	
6.	_____	_____	_____	_____	
7.	_____	_____	_____	_____	
8.	_____	_____	_____	_____	
= Total Cover					
120					
_____					
<b>Woody Vine Stratum</b> (Plot size: )					
1.	_____	_____	_____	_____	
2.	_____	_____	_____	_____	
= Total Cover					
% Bare Ground in Herb Stratum <u>0</u> % Cover of Biotic Crust <u>0</u>					<b>Hydrophytic Vegetation Indicators:</b> Dominance Test is >50% Prevalence Index is ≤3.0 <sup>1</sup> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
<b>Hydrophytic Vegetation Present?</b> Yes _____ No _____ X _____					

Remarks:

SOIL

Sampling Point: MP-06012017-1-OUT

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		

<sup>1</sup>Type: C= Concentration, D= Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

Indicators for Problematic Hydric Soils<sup>3</sup>:

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) ( <b>LRR C</b> )
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) ( <b>LRR B</b> )
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) ( <b>LRR C</b> )	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) ( <b>LRR D</b> )	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present?

Yes ☐ No ☐

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

Secondary Indicators (2 or more required)

<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) ( <b>Riverine</b> )
<input type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) ( <b>Riverine</b> )
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) ( <b>Riverine</b> )
<input type="checkbox"/> Water Marks (B1) ( <b>Nonriverine</b> )	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) ( <b>Nonriverine</b> )	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ☐ No ☐ Depth (inches):

Water Table Present? Yes ☐ No ☐ Depth (inches):

Saturation Present? Yes ☐ No ☐ Depth (inches):

(includes capillary fringe)

Wetland Hydrology Present? Yes ☐ No ☐

Describe Recorded Date (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Dry at surface.



**Sampling Site:** MP-06012017-1-OUT



**Photo Name:** Photo\_170601090052.jpg

**Direction:**

**Caption:**

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: WDC Wetland Update City/County: Davis Sampling Date: 5/30/2017  
 Applicant/Owner: UDOT State: UT Sampling Point: MP-05302017-2-OUT-3  
 Investigators: M. Perkins Section, Township, Range: 21 4N 2W  
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): Concave Slope(%): 2  
 Subregion (LRR): D - Western Range and Lat: 41.072414 Long: -112.070175 Datum: WGS84  
 Soil Map Unit Name: Ford loam, 0 to 1 percent slopes NWI Classification: PEM1/USA

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No        (If No, explain in Remarks)  
 Are Vegetation:        Soil        or Hydrology        significantly disturbed? Are "Normal Circumstances" present? Yes X No         
 Are Vegetation:        Soil        or Hydrology        naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <u>X</u>	No <u>      </u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>      </u> No <u>X</u>
Hydric Soil Present?	Yes <u>      </u>	No <u>X</u>	
Wetland Hydrology Present?	Yes <u>X</u>	No <u>      </u>	

Remarks:  
 Sampling point in swale feature that is higher and drier than nearby wetlands.

## VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test Worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.00000</u> (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
		= Total Cover		
Sapling/Shrub Stratum (Plot size: )				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x1= _____ FACW species <u>65</u> x2= <u>130</u> FAC species <u>20</u> x3= <u>60</u> FACU species <u>10</u> x4= <u>40</u> UPL species _____ x5= <u>0</u> Column Totals: <u>95</u> (A) <u>230</u> (B)  <i>Prevalence Index = B/A= 2.42</i>
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
		= Total Cover		
Herb Stratum (Plot size: 10)				<b>Hydrophytic Vegetation Indicators:</b> X Dominance Test is >50% X Prevalence Index is ≤3.0 <sup>1</sup> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.  <b>Hydrophytic Vegetation Present?</b> Yes <u>X</u> No <u>      </u>
1. <u>Carex praegracilis</u>	<u>45</u>	<u>Yes</u>	<u>FACW</u>	
2. <u>Juncus balticus</u>	<u>20</u>	<u>Yes</u>	<u>FACW</u>	
3. <u>Hordeum jubatum</u>	<u>10</u>	<u>No</u>	<u>FAC</u>	
4. <u>Hordeum pusillum</u>	<u>10</u>	<u>No</u>	<u>FACU</u>	
5. <u>Distichlis spicata</u>	<u>5</u>	<u>No</u>	<u>FAC</u>	
6. <u>Rumex crispus</u>	<u>5</u>	<u>No</u>	<u>FAC</u>	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
		= Total Cover		
Woody Vine Stratum (Plot size: )				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
		= Total Cover		
% Bare Ground in Herb Stratum <u>10</u>	% Cover of Biotic Crust <sup>0</sup> _____			

Remarks:



SOIL

Sampling Point: MP-05302017-2-OUT-3

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-2	10YR 4/3	100					Loam	
2-11	10YR 4/2	100					Silty Clay	
11-16	10YR 5/3	100					Clay Loam	
16-20	10YR 6/2	100					Clay Loam	

<sup>1</sup>Type: C= Concentration, D= Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

Indicators for Problematic Hydric Soils<sup>3</sup>:

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) ( <b>LRR C</b> )
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) ( <b>LRR B</b> )
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) ( <b>LRR C</b> )	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) ( <b>LRR D</b> )	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present?

Yes ☐ No ☐ X ☒

Remarks:

No indicators observed in profile.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

Secondary Indicators (2 or more required)

<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) ( <b>Riverine</b> )
<input type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) ( <b>Riverine</b> )
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) ( <b>Riverine</b> )
<input type="checkbox"/> Water Marks (B1) ( <b>Nonriverine</b> )	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) ( <b>Nonriverine</b> )	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input checked="" type="checkbox"/> FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ☐ No ☒ X ☐ Depth (inches):

Water Table Present? Yes ☐ No ☒ X ☐ Depth (inches):

Saturation Present? Yes ☒ X ☐ No ☐ Depth (inches):  11.0

(includes capillary fringe)

Wetland Hydrology Present? Yes ☐ X ☒ No ☐

Describe Recorded Date (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Irrigated pasture.

**Sampling Site: MP-05302017-2-OUT-3**



**Photo Name:** Photo\_170530140400.jpg

**Direction:**

**Caption:**



**Photo Name:** Photo\_170530140411.jpg

**Direction:**

**Caption:**



# WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: WDC Wetland Update City/County: Davis Sampling Date: 5/31/2017  
 Applicant/Owner: UDOT State: UT Sampling Point: MP-05312016-2-OUT  
 Investigators: MP Section, Township, Range: 16 4N 2W  
 Landform (hillslope, terrace, etc.): Valley Local Relief (concave, convex, none): Concave Slope(%): 1  
 Subregion (LRR): D - Western Range and Lat: 41.077599 Long: -112.073784 Datum: WGS84  
 Soil Map Unit Name: Ford loam, shallow water table, 0 to 1 percent slopes NWI Classification: PEM1A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No      (If No, explain in Remarks)  
 Are Vegetation:      Soil      or Hydrology      significantly disturbed? Are "Normal Circumstances" present? Yes X No       
 Are Vegetation:      Soil      or Hydrology      naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <u>X</u>	No <u>    </u>	<b>Is the Sampled Area within a Wetland?</b>  Yes <u>    </u> No <u>X</u>
Hydric Soil Present?	Yes <u>    </u>	No <u>X</u>	
Wetland Hydrology Present?	Yes <u>X</u>	No <u>    </u>	

Remarks:  
 Low area in irrigated pasture is not a wetland.

## VEGETATION – Use scientific names of plants.

Tree Stratum	(Plot size: )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test Worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.00000</u> (A/B)
1.					
2.					
3.					
4.					
				= Total Cover	
<b>Sapling/Shrub Stratum</b> (Plot size: )					<b>Prevalence Index worksheet:</b> <u>Total % Cover of:</u> <u>    </u> <u>Multiply by:</u> <u>    </u> OBL species <u>    </u> x1= <u>    </u> FACW species <u>55</u> x2= <u>110</u> FAC species <u>40</u> x3= <u>120</u> FACU species <u>5</u> x4= <u>20</u> UPL species <u>    </u> x5= <u>0</u> Column Totals: <u>100</u> (A) <u>250</u> (B)  <i>Prevalence Index = B/A= 2.50</i>
1.					
2.					
3.					
4.					
				= Total Cover	
<b>Herb Stratum</b> (Plot size: 5)					<b>Hydrophytic Vegetation Indicators:</b> X Dominance Test is >50% X Prevalence Index is ≤3.0 <sup>1</sup> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.  <b>Hydrophytic Vegetation Present?</b> Yes <u>X</u> No <u>    </u>
1.	Hordeum jubatum	40	Yes	FAC	
2.	Puccinellia nuttalliana	40	Yes	FACW	
3.	Carex praegracilis	15	No	FACW	
4.	Festuca pratensis	5	No	FACU	
5.					
6.					
7.					
8.					
				100 = Total Cover	
<b>Woody Vine Stratum</b> (Plot size: )					
1.					
2.					
				= Total Cover	
% Bare Ground in Herb Stratum <u>10</u>		% Cover of Biotic Crust <sup>0</sup> <u>    </u>			

Remarks:  
 Vegetation in subtle low area is hydrophytic. Surrounding areas are generally dominated by meadow fescue.

SOIL

Sampling Point: MP-05312016-2-OUT

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-2	10YR 4/3	100					Organic	
2-9	10YR 4/2	100					Silty Clay	
9-17	7.5YR 4/3	100					Clay Loam	

<sup>1</sup>Type: C= Concentration, D= Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

Indicators for Problematic Hydric Soils<sup>3</sup>:

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) ( <b>LRR C</b> )
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) ( <b>LRR B</b> )
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) ( <b>LRR C</b> )	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) ( <b>LRR D</b> )	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

Restrictive Layer (if present):

Type: Calcic

Depth (inches): 17

Hydric Soil Present? Yes No X

Remarks:

No indicators observed in profile.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

Secondary Indicators (2 or more required)

<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) ( <b>Riverine</b> )
<input checked="" type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) ( <b>Riverine</b> )
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) ( <b>Riverine</b> )
<input type="checkbox"/> Water Marks (B1) ( <b>Nonriverine</b> )	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) ( <b>Nonriverine</b> )	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input checked="" type="checkbox"/> FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes No X

Water Table Present? Yes X No

Saturation Present? Yes X No

(includes capillary fringe)

Depth (inches):

Depth (inches): 16.0

Depth (inches): 8.0

Wetland Hydrology Present? Yes X No

Describe Recorded Date (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Irrigation water in nearby field ditch.



**Sampling Site:** MP-05312016-2-OUT



**Photo Name:** Photo\_170531153925.jpg

**Direction:**

**Caption:**



**Photo Name:** Photo\_170531153937.jpg

**Direction:**

**Caption:**

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: WDC Wetland Update City/County: Davis Sampling Date: 5/31/2017  
 Applicant/Owner: UDOT State: UT Sampling Point: MP-05312016-1-OUT-4  
 Investigators: M. Perkins Section, Township, Range: 21 4N 2W  
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): None Slope(%):           
 Subregion (LRR): D - Western Range and Lat: 41.072826 Long: -112.069603 Datum: WGS84  
 Soil Map Unit Name: Ford loam, 0 to 1 percent slopes NWI Classification: PEM1/USA

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No          (If No, explain in Remarks)  
 Are Vegetation:          Soil          or Hydrology          significantly disturbed? Are "Normal Circumstances" present? Yes X No           
 Are Vegetation:          Soil          or Hydrology          naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <u>X</u>	No <u>        </u>	<b>Is the Sampled Area within a Wetland?</b>  Yes <u>        </u> No <u>X</u>
Hydric Soil Present?	Yes <u>        </u>	No <u>X</u>	
Wetland Hydrology Present?	Yes <u>        </u>	No <u>X</u>	

Remarks:  
 Sampling point not a wetland. Situated slightly higher than wetland to south.

## VEGETATION – Use scientific names of plants.

Tree Stratum	(Plot size: )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test Worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>        </u> 2 (A) Total Number of Dominant Species Across All Strata: <u>        </u> 2 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>        </u> 100.00000 (A/B)
1.	<u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	
2.	<u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	
3.	<u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	
4.	<u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	
				= Total Cover	
<b>Sapling/Shrub Stratum</b> (Plot size: )					<b>Prevalence Index worksheet:</b> <u>Total % Cover of:</u> <u>        </u> <u>Multiply by:</u> <u>        </u> OBL species <u>        </u> x1= <u>        </u> FACW species <u>        </u> 90 x2= <u>        </u> 180 FAC species <u>        </u> x3= <u>        </u> 0 FACU species <u>        </u> 20 x4= <u>        </u> 80 UPL species <u>        </u> 5 x5= <u>        </u> 25 Column Totals: <u>        </u> 115 (A) <u>        </u> 285 (B)
1.	<u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	
2.	<u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	
3.	<u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	
4.	<u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	
				= Total Cover	
<b>Herb Stratum</b> (Plot size: 5)					<i>Prevalence Index = B/A =</i> <u>        </u> 2.48
1.	<u>Juncus balticus</u>	<u>        </u> 65	<u>        </u> Yes	<u>        </u> FACW	
2.	<u>Carex praegracilis</u>	<u>        </u> 25	<u>        </u> Yes	<u>        </u> FACW	
3.	<u>Conyza canadensis</u>	<u>        </u> 10	<u>        </u> No	<u>        </u> FACU	
4.	<u>Festuca pratensis</u>	<u>        </u> 10	<u>        </u> No	<u>        </u> FACU	
5.	<u>Bromus racemosus</u>	<u>        </u> 5	<u>        </u> No	<u>        </u> UPL	
6.	<u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	
7.	<u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	
8.	<u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	
				<u>        </u> 115	= Total Cover
<b>Woody Vine Stratum</b> (Plot size: )					<b>Hydrophytic Vegetation Indicators:</b> X Dominance Test is >50% X Prevalence Index is ≤3.0 <sup>1</sup> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1.	<u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	
2.	<u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	
				= Total Cover	
% Bare Ground in Herb Stratum <u>        </u> 0 % Cover of Biotic Crust <sup>0</sup> <u>        </u>					
<b>Hydrophytic Vegetation Present?</b> Yes <u>X</u> No <u>        </u>					

Remarks:



SOIL

Sampling Point: MP-05312016-1-OUT-4

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-2	10YR 5/3						Organic	
2-6	10YR 4/3	100					Silty Clay	
6-12	7.5YR 3/3	100					Silty Clay	
12-20	7.5YR 5/3	100					Clay Loam	

<sup>1</sup>Type: C= Concentration, D= Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

Indicators for Problematic Hydric Soils<sup>3</sup>:

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) ( <b>LRR C</b> )
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) ( <b>LRR B</b> )
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) ( <b>LRR C</b> )	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) ( <b>LRR D</b> )	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present?

Yes ☐

No ☐

X ☐

Remarks:

No indicators observed in profile.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

Secondary Indicators (2 or more required)

<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) ( <b>Riverine</b> )
<input type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) ( <b>Riverine</b> )
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) ( <b>Riverine</b> )
<input type="checkbox"/> Water Marks (B1) ( <b>Nonriverine</b> )	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) ( <b>Nonriverine</b> )	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input checked="" type="checkbox"/> FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches):

Water Table Present? Yes ☐ No ☒ Depth (inches):

Saturation Present? Yes ☐ No ☒ Depth (inches):

(includes capillary fringe)

Wetland Hydrology Present? Yes ☐ No ☐ X ☒

Describe Recorded Date (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Soils moist but not saturated.

**Sampling Site:** MP-05312016-1-OUT-4



**Photo Name:** Photo\_170531132409.jpg

**Direction:**

**Caption:**



**Photo Name:** Photo\_170531132429.jpg

**Direction:**

**Caption:**



# WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: WDC Wetland Update City/County: Davis Sampling Date: 5/30/2017  
 Applicant/Owner: UDOT State: UT Sampling Point: MP-05302017-2-IN-2  
 Investigators: M. Perkins Section, Township, Range: 21 4N 2W  
 Landform (hillslope, terrace, etc.): Valley Local Relief (concave, convex, none): None Slope(%):           
 Subregion (LRR): D - Western Range and Lat: 41.072372 Long: -112.069420 Datum: WGS84  
 Soil Map Unit Name: Ford loam, 0 to 1 percent slopes NWI Classification: PEM1/USA

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No          (If No, explain in Remarks)  
 Are Vegetation:          Soil          or Hydrology          significantly disturbed? Are "Normal Circumstances" present? Yes X No           
 Are Vegetation:          Soil          or Hydrology          naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <u>        </u>	No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No <u>        </u>
Hydric Soil Present?	Yes <u>X</u>	No <u>        </u>	
Wetland Hydrology Present?	Yes <u>X</u>	No <u>        </u>	

Remarks:  
 Sampling point is a wetland.

## VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test Worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.00000</u> (A/B)
1. <u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	
2. <u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	
3. <u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	
4. <u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	
		= Total Cover		
<u>Sapling/Shrub Stratum</u> (Plot size: )				<b>Prevalence Index worksheet:</b> <u>Total % Cover of:</u> <u>        </u> <u>Multiply by:</u> <u>        </u> OBL species <u>        </u> x1= <u>        </u> FACW species <u>15</u> x2= <u>30</u> FAC species <u>55</u> x3= <u>165</u> FACU species <u>5</u> x4= <u>20</u> UPL species <u>        </u> x5= <u>0</u> Column Totals: <u>75</u> (A) <u>215</u> (B)  <i>Prevalence Index = B/A= 2.87</i>
1. <u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	
2. <u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	
3. <u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	
4. <u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	
5. <u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	
		= Total Cover		
<u>Herb Stratum</u> (Plot size: 5)				<b>Hydrophytic Vegetation Indicators:</b> X Dominance Test is >50% X Prevalence Index is ≤3.0 <sup>1</sup> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
1. <u>Hordeum jubatum</u>	<u>30</u>	<u>Yes</u>	<u>FAC</u>	
2. <u>Poa palustris</u>	<u>20</u>	<u>Yes</u>	<u>FAC</u>	
3. <u>Juncus balticus</u>	<u>15</u>	<u>Yes</u>	<u>FACW</u>	
4. <u>Rumex crispus</u>	<u>5</u>	<u>No</u>	<u>FAC</u>	
5. <u>Hordeum pusillum</u>	<u>5</u>	<u>No</u>	<u>FACU</u>	
6. <u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	
7. <u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	
8. <u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	
	<u>75</u>	= Total Cover		
<u>Woody Vine Stratum</u> (Plot size: )				<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. <u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	
2. <u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	
		= Total Cover		
% Bare Ground in Herb Stratum <u>25</u>		% Cover of Biotic Crust <sup>0</sup> <u>        </u>		<b>Hydrophytic Vegetation Present?</b> Yes <u>        </u> No <u>        </u> X <u>        </u>

Remarks:

SOIL

Sampling Point: MP-05302017-2-IN-2

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-2	10YR 4/3	100					Organic	
2-8	10YR 4/2	95	10YR 5/8	5	C	M	Silty Clay	
8-12	7.5YR 4/2	95	5YR 4/6	5	C	M	Clay Loam	

<sup>1</sup>Type: C= Concentration, D= Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

Indicators for Problematic Hydric Soils<sup>3</sup>:

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) ( <b>LRR C</b> )
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) ( <b>LRR B</b> )
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) ( <b>LRR C</b> )	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) ( <b>LRR D</b> )	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

Restrictive Layer (if present):

Type: Calcic

Depth (inches): 12

Hydric Soil Present? Yes ☒ No ☐

Remarks:

Depleted matrix (F3) observed.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

Secondary Indicators (2 or more required)

<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) ( <b>Riverine</b> )
<input type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) ( <b>Riverine</b> )
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) ( <b>Riverine</b> )
<input type="checkbox"/> Water Marks (B1) ( <b>Nonriverine</b> )	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) ( <b>Nonriverine</b> )	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input checked="" type="checkbox"/> FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches):

Water Table Present? Yes ☐ No ☒ Depth (inches):

Saturation Present? Yes ☒ No ☐ Depth (inches): 10.0

(includes capillary fringe)

Wetland Hydrology Present? Yes ☒ No ☐

Describe Recorded Date (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:



**Sampling Site:** MP-05302017-2-IN-2



**Photo Name:** Photo\_170531134719.jpg

**Direction:**

**Caption:**



**Photo Name:** Photo\_170531134729.jpg

**Direction:**

**Caption:**

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: WDC Wetland Update City/County: Davis Sampling Date: 6/1/2017  
 Applicant/Owner: UDOT State: UT Sampling Point: MP-06012017-2-OUT  
 Investigators: M. Perkins Section, Township, Range: 17 4N 2W  
 Landform (hillslope, terrace, etc.): Valley Local Relief (concave, convex, none): Concave Slope(%): 1  
 Subregion (LRR): D - Western Range and Lat: 41.087463 Long: -112.086487 Datum: WGS84  
 Soil Map Unit Name: Ford loam, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation: \_\_\_\_\_ Soil \_\_\_\_\_ or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation: \_\_\_\_\_ Soil \_\_\_\_\_ or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <u>X</u>	No _____	Is the Sampled Area within a Wetland?	Yes _____ No <u>X</u>
Hydric Soil Present?	Yes _____	No _____		
Wetland Hydrology Present?	Yes _____	No _____		

Remarks:  
 Small depression in Corps interest area is not a wetland. Surrounding vegetation beyond the depression is not hydrophytic.

## VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test Worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.00000</u> (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
			= Total Cover	
<b>Sapling/Shrub Stratum (Plot size: )</b>				
1. _____	_____	_____	_____	<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: OBL species _____ x1= _____ FACW species <u>20</u> x2= <u>40</u> FAC species <u>50</u> x3= <u>150</u> FACU species _____ x4= <u>0</u> UPL species <u>10</u> x5= <u>50</u> Column Totals: <u>80</u> (A) <u>240</u> (B)  <i>Prevalence Index = B/A=</i> <u>3.00</u>
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
			= Total Cover	
<b>Herb Stratum (Plot size: 5)</b>				
1. <u>Distichlis spicata</u>	<u>50</u>	<u>Yes</u>	<u>FAC</u>	<b>Hydrophytic Vegetation Indicators:</b> X Dominance Test is >50% X Prevalence Index is ≤3.0 <sup>1</sup> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. <u>Puccinellia nuttalliana</u>	<u>20</u>	<u>Yes</u>	<u>FACW</u>	
3. <u>Thinopyrum intermedium</u>	<u>10</u>	<u>No</u>	<u>UPL</u>	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
			= Total Cover	
<b>Woody Vine Stratum (Plot size: )</b>				
1. _____	_____	_____	_____	<b>Hydrophytic Vegetation Present?</b> Yes <u>X</u> No _____
2. _____	_____	_____	_____	
			= Total Cover	
% Bare Ground in Herb Stratum <u>25</u>	% Cover of Biotic Crust <sup>0</sup> _____			

Remarks:



SOIL

Sampling Point: MP-06012017-2-OUT

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-4	7.5YR 5/3	100					Silt Loam	
4-20	7.5YR 4/3	100					Silt Loam	

<sup>1</sup>Type: C= Concentration, D= Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

Indicators for Problematic Hydric Soils<sup>3</sup>:

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) ( <b>LRR C</b> )
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) ( <b>LRR B</b> )
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) ( <b>LRR C</b> )	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) ( <b>LRR D</b> )	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present?

Yes ☐ No ☐

Remarks:

No indicators observed in profile.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

Secondary Indicators (2 or more required)

<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) ( <b>Riverine</b> )
<input type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) ( <b>Riverine</b> )
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) ( <b>Riverine</b> )
<input type="checkbox"/> Water Marks (B1) ( <b>Nonriverine</b> )	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) ( <b>Nonriverine</b> )	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches):

Water Table Present? Yes ☐ No ☒ Depth (inches):

Saturation Present? Yes ☐ No ☒ Depth (inches):

(includes capillary fringe)

Wetland Hydrology Present? Yes ☐ No ☐

Describe Recorded Date (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Dry soils. No indicators.

**Sampling Site: MP-06012017-2-OUT**



**Photo Name:** Photo\_170601092348.jpg

**Direction:**

**Caption:**



**Photo Name:** Photo\_170601092403.jpg

**Direction:**

**Caption:**



# WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: WDC Wetland Update City/County: Davis Sampling Date: 6/1/2017  
 Applicant/Owner: UDOT State: UT Sampling Point: MP-06012017-3-OUT-4  
 Investigators: M. Perkins Section, Township, Range: 05 4N 2W  
 Landform (hillslope, terrace, etc.): Toeslope Local Relief (concave, convex, none): Convex Slope(%): 3  
 Subregion (LRR): D - Western Range and Lat: 41.109943 Long: -112.098885 Datum: WGS84  
 Soil Map Unit Name: Ford loam, shallow water table, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation: \_\_\_\_\_ Soil \_\_\_\_\_ or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation: \_\_\_\_\_ Soil \_\_\_\_\_ or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <u>X</u>	No _____	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u>
Hydric Soil Present?	Yes _____	No <u>X</u>	
Wetland Hydrology Present?	Yes _____	No <u>X</u>	

Remarks:  
 Out point up slope from wetland.

## VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test Worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.00000</u> (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	<b>Prevalence Index worksheet:</b> <b>Total % Cover of:</b> _____ <b>Multiply by:</b> _____ OBL species _____ x1= _____ FACW species _____ x2= <u>0</u> FAC species <u>120</u> x3= <u>360</u> FACU species _____ x4= <u>0</u> UPL species _____ x5= <u>0</u> Column Totals: <u>120</u> (A) <u>360</u> (B)  <i>Prevalence Index = B/A=</i> <u>3.00</u>
= Total Cover			_____	
<b>Sapling/Shrub Stratum (Plot size: )</b> 1. _____ 2. _____ 3. _____ 4. _____ 5. _____ _____ = Total Cover				
<b>Herb Stratum (Plot size: 5)</b> 1. <u>Dipsacus fullonum</u> <u>80</u> Yes <u>FAC</u> 2. <u>Lepidium latifolium</u> <u>40</u> Yes <u>FAC</u> 3. _____ 4. _____ 5. _____ 6. _____ 7. _____ 8. _____ _____ <u>120</u> = Total Cover				
<b>Woody Vine Stratum (Plot size: )</b> 1. _____ 2. _____ _____ = Total Cover				<b>Hydrophytic Vegetation Indicators:</b> X Dominance Test is >50% X Prevalence Index is ≤3.0 <sup>1</sup> _____ Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
% Bare Ground in Herb Stratum <u>0</u> % Cover of Biotic Crust <sup>0</sup> _____				
<b>Hydrophytic Vegetation Present?</b> Yes <u>X</u> No _____				

Remarks:

SOIL

Sampling Point: MP-06012017-3-OUT-4

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-20	10YR 4/3	100						

<sup>1</sup>Type: C= Concentration, D= Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

Indicators for Problematic Hydric Soils<sup>3</sup>:

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) ( <b>LRR C</b> )
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) ( <b>LRR B</b> )
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) ( <b>LRR C</b> )	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) ( <b>LRR D</b> )	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present?

Yes ☐ No ☐ X ☐

Remarks:

No indicators observed in profile.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

Secondary Indicators (2 or more required)

<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) ( <b>Riverine</b> )
<input type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) ( <b>Riverine</b> )
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) ( <b>Riverine</b> )
<input type="checkbox"/> Water Marks (B1) ( <b>Nonriverine</b> )	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) ( <b>Nonriverine</b> )	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ☐ No ☐ Depth (inches):

Water Table Present? Yes ☐ No ☐ Depth (inches):

Saturation Present? Yes ☐ No ☐ Depth (inches):

(includes capillary fringe)

Wetland Hydrology Present?

Yes ☐ No ☐ X ☐

Describe Recorded Date (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Dry soils.

**Sampling Site:** MP-06012017-3-OUT-4



**Photo Name:** Photo\_170601134046.jpg

**Direction:**

**Caption:**



**Photo Name:** Photo\_170601134102.jpg

**Direction:**

**Caption:**



# WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: WDC Wetland Update City/County: Davis Sampling Date: 5/30/2017  
 Applicant/Owner: UDOT State: UT Sampling Point: MP-05302017-1-OUT  
 Investigators: MP Section, Township, Range: 23 4N 2W  
 Landform (hillslope, terrace, etc.): Terrace Tread Local Relief (concave, convex, none): Convex Slope(%): 2  
 Subregion (LRR): D - Western Range and Lat: 41.060493 Long: -112.041389 Datum: WGS84  
 Soil Map Unit Name: Parleys loam, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation: \_\_\_\_\_ Soil \_\_\_\_\_ or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation: \_\_\_\_\_ Soil \_\_\_\_\_ or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <u>X</u>	No _____	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u>
Hydric Soil Present?	Yes _____	No <u>X</u>	
Wetland Hydrology Present?	Yes _____	No <u>X</u>	

Remarks:  
 Out point just upslope from in point and wetland.

## VEGETATION – Use scientific names of plants.

Tree Stratum	(Plot size: )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test Worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: _____ 1 (A) Total Number of Dominant Species Across All Strata: _____ 1 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ 100.00000 (A/B)
1.	_____	_____	_____	_____	
2.	_____	_____	_____	_____	
3.	_____	_____	_____	_____	
4.	_____	_____	_____	_____	
				= Total Cover	
<b>Sapling/Shrub Stratum</b> (Plot size: )					<b>Prevalence Index worksheet:</b> <u>Total % Cover of:</u> _____ <u>Multiply by:</u> _____ OBL species _____ x1= _____ FACW species _____ 65 x2= _____ 130 FAC species _____ x3= _____ 0 FACU species _____ 15 x4= _____ 60 UPL species _____ x5= _____ 0 Column Totals: _____ 80 (A) _____ 190 (B)  <i>Prevalence Index = B/A=</i> _____ 2.38
1.	_____	_____	_____	_____	
2.	_____	_____	_____	_____	
3.	_____	_____	_____	_____	
4.	_____	_____	_____	_____	
				= Total Cover	
<b>Herb Stratum</b> (Plot size: 5)					<b>Hydrophytic Vegetation Indicators:</b> X Dominance Test is >50% X Prevalence Index is ≤3.0 <sup>1</sup> _____ Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
1.	<u>Conium maculatum</u>	55	Yes	FACW	
2.	<u>Coryza canadensis</u>	15	No	FACU	
3.	<u>Juncus balticus</u>	10	No	FACW	
4.	_____	_____	_____	_____	
5.	_____	_____	_____	_____	
6.	_____	_____	_____	_____	
7.	_____	_____	_____	_____	
8.	_____	_____	_____	_____	
				80	= Total Cover
<b>Woody Vine Stratum</b> (Plot size: )					<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.  <b>Hydrophytic Vegetation Present?</b> Yes <u>X</u> No _____
1.	_____	_____	_____	_____	
2.	_____	_____	_____	_____	
				= Total Cover	
% Bare Ground in Herb Stratum	15	% Cover of Biotic Crust <sup>0</sup>		_____	

Remarks:  
 Weedy vegetation.

SOIL

Sampling Point: MP-05302017-1-OUT

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-14	10YR 3/2	100					Loam	
14-20	10YR 3/2	90	10YR 7/2	10	D	M	Loamy Sand	

<sup>1</sup>Type: C= Concentration, D= Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

Indicators for Problematic Hydric Soils<sup>3</sup>:

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) ( <b>LRR C</b> )
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) ( <b>LRR B</b> )
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) ( <b>LRR C</b> )	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) ( <b>LRR D</b> )	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present?

Yes ☐ No ☐ X ☐

Remarks:

Profile does not fit hydric indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (2 or more required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) ( <b>Riverine</b> )
<input type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) ( <b>Riverine</b> )
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) ( <b>Riverine</b> )
<input type="checkbox"/> Water Marks (B1) ( <b>Nonriverine</b> )	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) ( <b>Nonriverine</b> )	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input checked="" type="checkbox"/> FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ☐ No ☒ X ☐ Depth (inches):

Water Table Present? Yes ☐ No ☒ X ☐ Depth (inches):

Saturation Present? Yes ☒ X ☐ No ☐ Depth (inches):  18.0

(includes capillary fringe)

Wetland Hydrology Present?

Yes ☐ No ☐ X ☒

Describe Recorded Date (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**Sampling Site:** MP-05302017-1-OUT



**Photo Name:** Photo\_170530090605.jpg

**Direction:**

**Caption:**



**Photo Name:** Photo\_170530090615.jpg

**Direction:**

**Caption:**



# WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: WDC Wetland Update City/County: Davis Sampling Date: 6/1/2017  
 Applicant/Owner: UDOT State: UT Sampling Point: MP-06012017-3-IN-2  
 Investigators: M. Perkins Section, Township, Range: 05 4N 2W  
 Landform (hillslope, terrace, etc.): Toeslope Local Relief (concave, convex, none): Concave Slope(%): 2  
 Subregion (LRR): D - Western Range and Lat: 41.109859 Long: -112.098900 Datum: WGS84  
 Soil Map Unit Name: Ford loam, shallow water table, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation: \_\_\_\_\_ Soil \_\_\_\_\_ or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation: \_\_\_\_\_ Soil \_\_\_\_\_ or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <u>X</u>	No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____
Hydric Soil Present?	Yes <u>X</u>	No _____	
Wetland Hydrology Present?	Yes <u>X</u>	No _____	

Remarks:  
 Sampling point is a wetland.

## VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test Worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.00000</u> (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	<b>Prevalence Index worksheet:</b> <u>Total % Cover of:</u> <u>Multiply by:</u> OBL species <u>30</u> x1= <u>30</u> FACW species <u>30</u> x2= <u>60</u> FAC species <u>25</u> x3= <u>75</u> FACU species _____ x4= <u>0</u> UPL species _____ x5= <u>0</u> Column Totals: <u>85</u> (A) <u>165</u> (B)  <i>Prevalence Index = B/A=</i> <u>1.94</u>
= Total Cover			_____	
<u>Sapling/Shrub Stratum</u> (Plot size: )				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	<b>Hydrophytic Vegetation Indicators:</b> X Dominance Test is >50% X Prevalence Index is ≤3.0 <sup>1</sup> _____ Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
= Total Cover			_____	<b>Hydrophytic Vegetation</b> Yes <u>X</u> No _____ <b>Present?</b>
<u>Herb Stratum</u> (Plot size: 5)				
1. <u>Juncus balticus</u>	<u>30</u>	<u>Yes</u>	<u>FACW</u>	
2. <u>Schoenoplectus pungens</u>	<u>30</u>	<u>Yes</u>	<u>OBL</u>	
3. <u>Distichlis spicata</u>	<u>15</u>	<u>No</u>	<u>FAC</u>	
4. <u>Dipsacus fullonum</u>	<u>10</u>	<u>No</u>	<u>FAC</u>	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	<b>Hydrophytic</b> Yes <u>X</u> No _____ <b>Present?</b>
= Total Cover			_____	
<u>Woody Vine Stratum</u> (Plot size: )				
1. _____	_____	_____	_____	<b>Hydrophytic</b> Yes <u>X</u> No _____ <b>Present?</b>
2. _____	_____	_____	_____	
= Total Cover			_____	
% Bare Ground in Herb Stratum <u>10</u>	% Cover of Biotic Crust <sup>5</sup> _____			

Remarks:

SOIL

Sampling Point: MP-06012017-3-IN-2

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-3	10YR4/3	100					Silty Clay	
3-4	G1 2.5/N	100					Organic	Muck
4-20			G1 2.5/N	15	C	M		Mn
4-20	10YR 4/2	80	7.5YR 6/8	5%	C	M	Silty Clay	

<sup>1</sup>Type: C= Concentration, D= Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

Indicators for Problematic Hydric Soils<sup>3</sup>:

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) ( <b>LRR C</b> )
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) ( <b>LRR B</b> )
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) ( <b>LRR C</b> )	<input checked="" type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input checked="" type="checkbox"/> 1 cm Muck (A9) ( <b>LRR D</b> )	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present?

Yes

☒ X

No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

Secondary Indicators (2 or more required)

<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) ( <b>Riverine</b> )
<input type="checkbox"/> High Water Tables (A2)	<input checked="" type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) ( <b>Riverine</b> )
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) ( <b>Riverine</b> )
<input checked="" type="checkbox"/> Water Marks (B1) ( <b>Nonriverine</b> )	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) ( <b>Nonriverine</b> )	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input checked="" type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input checked="" type="checkbox"/> FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ☐ No ☒ X Depth (inches):

Water Table Present? Yes ☐ No ☒ X Depth (inches):

Saturation Present? Yes ☒ X No ☐ Depth (inches):  0.0

(includes capillary fringe)

Wetland Hydrology Present?

Yes

☒ X

No

Describe Recorded Date (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: WDC Wetland Update City/County: Davis Sampling Date: 6/1/2017  
 Applicant/Owner: UDOT State: UT Sampling Point: MP-06012017-3-IN  
 Investigators: M. Perkins Section, Township, Range: 05 4N 2W  
 Landform (hillslope, terrace, etc.): Toeslope Local Relief (concave, convex, none): Concave Slope(%): 2  
 Subregion (LRR): D - Western Range and Lat: 41.110489 Long: -112.099922 Datum: WGS84  
 Soil Map Unit Name: Ford loam, shallow water table, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation: \_\_\_\_\_ Soil \_\_\_\_\_ or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation: \_\_\_\_\_ Soil \_\_\_\_\_ or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <u>X</u>	No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____
Hydric Soil Present?	Yes <u>X</u>	No _____	
Wetland Hydrology Present?	Yes <u>X</u>	No _____	
Remarks: Wet meadow wetland.			

## VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test Worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.00000</u> (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	<b>Prevalence Index worksheet:</b> <u>Total % Cover of:</u> <u>Multiply by:</u> OBL species <u>      </u> x1= <u>      </u> FACW species <u>85</u> x2= <u>170</u> FAC species <u>20</u> x3= <u>60</u> FACU species <u>      </u> x4= <u>0</u> UPL species <u>      </u> x5= <u>0</u> Column Totals: <u>105</u> (A) <u>230</u> (B)  <i>Prevalence Index = B/A=</i> <u>2.19</u>
= Total Cover			_____	
<u>Sapling/Shrub Stratum</u> (Plot size: )				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	<b>Hydrophytic Vegetation Indicators:</b> X Dominance Test is >50% X Prevalence Index is ≤3.0 <sup>1</sup> _____ Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
= Total Cover			_____	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
<u>Herb Stratum</u> (Plot size: 5)				
1. <u>Juncus balticus</u>	<u>85</u>	<u>Yes</u>	<u>FACW</u>	
2. <u>Dipsacus fullonum</u>	<u>20</u>	<u>No</u>	<u>FAC</u>	
3. _____	_____	_____	_____	<b>Hydrophytic Vegetation</b> Yes <u>X</u> No _____ <b>Present?</b>
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	<b>Hydrophytic Vegetation</b> Yes <u>X</u> No _____ <b>Present?</b>
8. _____	_____	_____	_____	
= Total Cover			_____	
<u>Woody Vine Stratum</u> (Plot size: )				
1. _____	_____	_____	_____	<b>Hydrophytic Vegetation</b> Yes <u>X</u> No _____ <b>Present?</b>
2. _____	_____	_____	_____	
= Total Cover			_____	
% Bare Ground in Herb Stratum <u>0</u> % Cover of Biotic Crust <sup>0</sup> _____				

Remarks:



SOIL

Sampling Point: MP-06012017-3-IN

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-3	10YR 4/3	100					Loam	
3-15			10YR 6/2	10	D	M		
3-15			G1 2.5/N	7	C	M		Mn
3-15	10YR 4/2	80	7.5YR 5/8	3	C	M	Silty Clay	Add 7% Mn Conc & 10 10YR 6/2 D
15-15	ROCK							Rock

<sup>1</sup>Type: C= Concentration, D= Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

Indicators for Problematic Hydric Soils<sup>3</sup>:

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) ( <b>LRR C</b> )
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) ( <b>LRR B</b> )
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) ( <b>LRR C</b> )	<input checked="" type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) ( <b>LRR D</b> )	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes ☒ No ☐

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

Secondary Indicators (2 or more required)

<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) ( <b>Riverine</b> )
<input type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) ( <b>Riverine</b> )
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) ( <b>Riverine</b> )
<input type="checkbox"/> Water Marks (B1) ( <b>Nonriverine</b> )	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) ( <b>Nonriverine</b> )	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input checked="" type="checkbox"/> FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ☐ No ☐ Depth (inches):

Water Table Present? Yes ☐ No ☐ Depth (inches):

Saturation Present? Yes ☒ No ☐ Depth (inches):  0.0

(includes capillary fringe)

Wetland Hydrology Present? Yes ☒ No ☐

Describe Recorded Date (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**Sampling Site:** MP-06012017-3-IN



**Photo Name:** Photo\_170601124635.jpg

**Direction:**

**Caption:**



**Photo Name:** Photo\_170601124643.jpg

**Direction:**

**Caption:**

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: WDC Wetland Update City/County: Davis Sampling Date: 5/31/2017  
 Applicant/Owner: UDOT State: UT Sampling Point: AC05312017-1-out  
 Investigators: A. Croft Section, Township, Range: 31 5N 2W  
 Landform (hillslope, terrace, etc.): Valley Local Relief (concave, convex, none): None Slope(%):           
 Subregion (LRR): D - Western Range and Lat: 41.126980 Long: -112.108101 Datum: WGS84  
 Soil Map Unit Name: Ford loam, shallow water table, 0 to 1 percent slopes NWI Classification:         

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No          (If No, explain in Remarks)  
 Are Vegetation:          Soil          or Hydrology          significantly disturbed? Are "Normal Circumstances" present? Yes X No           
 Are Vegetation:          Soil          or Hydrology          naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <u>        </u>	No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>        </u> No <u>X</u>
Hydric Soil Present?	Yes <u>        </u>	No <u>X</u>	
Wetland Hydrology Present?	Yes <u>        </u>	No <u>X</u>	

Remarks:

## VEGETATION – Use scientific names of plants.

Tree Stratum	(Plot size: )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test Worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>        </u> (A) Total Number of Dominant Species Across All Strata: <u>        </u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>        </u> (A/B)
1.	<u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	
2.	<u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	
3.	<u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	
4.	<u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	
			= Total Cover		
<b>Sapling/Shrub Stratum</b> (Plot size: )					
1.	<u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	<b>Prevalence Index worksheet:</b> <u>Total % Cover of:</u> <u>        </u> <u>Multiply by:</u> <u>        </u> OBL species <u>        </u> x1= <u>        </u> FACW species <u>        </u> x2= <u>        </u> 0 FAC species <u>        </u> x3= <u>        </u> 0 FACU species <u>        </u> x4= <u>        </u> 0 UPL species <u>        </u> x5= <u>        </u> 0 Column Totals: <u>        </u> 0 (A) <u>        </u> 0 (B)
2.	<u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	
3.	<u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	
4.	<u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	
5.	<u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	
			= Total Cover		
<b>Herb Stratum</b> (Plot size: )					
1.	<u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	<b>Prevalence Index = B/A =</b> <u>        </u> NaN  <b>Hydrophytic Vegetation Indicators:</b> Dominance Test is >50% <u>X</u> Prevalence Index is ≤3.0 <sup>1</sup> <u>        </u> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <u>        </u> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
2.	<u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	
3.	<u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	
4.	<u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	
5.	<u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	
6.	<u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	
7.	<u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	
8.	<u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	
			= Total Cover		
<b>Woody Vine Stratum</b> (Plot size: )					
1.	<u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2.	<u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	
			= Total Cover		
% Bare Ground in Herb Stratum <u>        </u>		% Cover of Biotic Crust <u>        </u>			

Remarks:



SOIL

Sampling Point: AC05312017-1-out

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		

<sup>1</sup>Type: C= Concentration, D= Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

Indicators for Problematic Hydric Soils<sup>3</sup>:

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) ( <b>LRR C</b> )
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) ( <b>LRR B</b> )
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) ( <b>LRR C</b> )	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) ( <b>LRR D</b> )	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present?

Yes ☐

No ☐

X ☐

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

Secondary Indicators (2 or more required)

<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) ( <b>Riverine</b> )
<input type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) ( <b>Riverine</b> )
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) ( <b>Riverine</b> )
<input type="checkbox"/> Water Marks (B1) ( <b>Nonriverine</b> )	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) ( <b>Nonriverine</b> )	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ☐ No ☐ Depth (inches):

Water Table Present? Yes ☐ No ☐ Depth (inches):

Saturation Present? Yes ☐ No ☐ Depth (inches):

(includes capillary fringe)

Wetland Hydrology Present?

Yes ☐

No ☐

X ☐

Describe Recorded Date (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**Sampling Site:** AC05312017-1-out



**Photo Name:** Photo\_170531125935.jpg

**Direction:**

**Caption:**

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: WDC Wetland Update City/County: Davis Sampling Date: 5/25/2017  
 Applicant/Owner: UDOT State: UT Sampling Point: MP-05252017-OUT-1  
 Investigators: M. Perkins Section, Township, Range: 36 3N 1W  
 Landform (hillslope, terrace, etc.): Depression Local Relief (concave, convex, none): Convex Slope(%): 1  
 Subregion (LRR): D - Western Range and Lat: 40.958164 Long: -111.901543 Datum: WGS84  
 Soil Map Unit Name: Airport silt loam, 0 to 2 percent slopes NWI Classification: PEM1A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No        (If No, explain in Remarks)  
 Are Vegetation:        Soil        or Hydrology        significantly disturbed? Are "Normal Circumstances" present? Yes X No         
 Are Vegetation:        Soil        or Hydrology        naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <u>      </u>	No <u>X</u>	Is the Sampled Area within a Wetland?	Yes <u>      </u>	No <u>X</u>
Hydric Soil Present?	Yes <u>      </u>	No <u>      </u>			
Wetland Hydrology Present?	Yes <u>      </u>	No <u>      </u>			

Remarks:  
 Vegetation clearly upland so no soil pit dug.

## VEGETATION – Use scientific names of plants.

Tree Stratum	(Plot size: )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test Worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50.000000</u> (A/B)
1.					
2.					
3.					
4.					
				= Total Cover	
<b>Sapling/Shrub Stratum</b> (Plot size: 10)					
1.	Tamarix ramosissima	10	Yes	FAC	<b>Prevalence Index worksheet:</b> Total % Cover of: <u>      </u> Multiply by: <u>      </u> OBL species <u>      </u> x1= <u>      </u> FACW species <u>      </u> x2= <u>0</u> FAC species <u>25</u> x3= <u>75</u> FACU species <u>      </u> x4= <u>0</u> UPL species <u>90</u> x5= <u>450</u> Column Totals: <u>115</u> (A) <u>525</u> (B)  <i>Prevalence Index = B/A= 4.57</i>
2.					
3.					
4.					
5.					
				= Total Cover	
<b>Herb Stratum</b> (Plot size: 10)					
1.	Thinopyrum intermedium	90	Yes	UPL	<b>Hydrophytic Vegetation Indicators:</b> Dominance Test is >50% Prevalence Index is ≤3.0 <sup>1</sup> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2.	Distichlis spicata	15	No	FAC	
3.					
4.					
5.					
6.					
7.					
8.					
				= Total Cover	
<b>Woody Vine Stratum</b> (Plot size: )					
1.					
2.					
				= Total Cover	
% Bare Ground in Herb Stratum	<u>0</u>	% Cover of Biotic Crust	<u>0</u>		

Remarks:  
 Upland vegetation.



SOIL

Sampling Point: MP-05252017-OUT-1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		

<sup>1</sup>Type: C= Concentration, D= Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

Indicators for Problematic Hydric Soils<sup>3</sup>:

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) ( <b>LRR C</b> )
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) ( <b>LRR B</b> )
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) ( <b>LRR C</b> )	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) ( <b>LRR D</b> )	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present?

Yes ☐ No ☐

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

Secondary Indicators (2 or more required)

<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) ( <b>Riverine</b> )
<input type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) ( <b>Riverine</b> )
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) ( <b>Riverine</b> )
<input type="checkbox"/> Water Marks (B1) ( <b>Nonriverine</b> )	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) ( <b>Nonriverine</b> )	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ☐ No ☐ Depth (inches):

Water Table Present? Yes ☐ No ☐ Depth (inches):

Saturation Present? Yes ☐ No ☐ Depth (inches):

(includes capillary fringe)

Wetland Hydrology Present? Yes ☐ No ☐

Describe Recorded Date (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: WDC Wetland Update City/County: Davis Sampling Date: 6/1/2017  
 Applicant/Owner: UDOT State: UT Sampling Point: AC06012017-1-out  
 Investigators: A. Croft Section, Township, Range: 26 4N 2W  
 Landform (hillslope, terrace, etc.): Valley Local Relief (concave, convex, none): Convex Slope(%): 1  
 Subregion (LRR): D - Western Range and Lat: 41.056042 Long: -112.033714 Datum: WGS84  
 Soil Map Unit Name: Ford loam, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation: \_\_\_\_\_ Soil \_\_\_\_\_ or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation: \_\_\_\_\_ Soil \_\_\_\_\_ or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <u>X</u>	No _____	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u>
Hydric Soil Present?	Yes _____	No <u>X</u>	
Wetland Hydrology Present?	Yes _____	No <u>X</u>	

Remarks:

## VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test Worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: _____ (A) Total Number of Dominant Species Across All Strata: _____ (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
		= Total Cover		
<u>Sapling/Shrub Stratum</u> (Plot size: )				<b>Prevalence Index worksheet:</b> <u>Total % Cover of:</u> _____ <u>Multiply by:</u> _____ OBL species _____ x1= _____ FACW species _____ x2= _____ 0 FAC species _____ x3= _____ 0 FACU species _____ x4= _____ 0 UPL species _____ x5= _____ 0 Column Totals: _____ 0 (A) _____ 0 (B)  <i>Prevalence Index = B/A=</i> _____ NaN
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
		= Total Cover		
<u>Herb Stratum</u> (Plot size: )				<b>Hydrophytic Vegetation Indicators:</b> Dominance Test is >50% <u>X</u> Prevalence Index is ≤3.0 <sup>1</sup> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
		= Total Cover		
<u>Woody Vine Stratum</u> (Plot size: )				<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
		= Total Cover		
% Bare Ground in Herb Stratum _____		% Cover of Biotic Crust _____		<b>Hydrophytic Vegetation</b> Yes <u>X</u> No _____ <b>Present?</b>

Remarks:

SOIL

Sampling Point: AC06012017-1-out

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		

<sup>1</sup>Type: C= Concentration, D= Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

Indicators for Problematic Hydric Soils<sup>3</sup>:

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) ( <b>LRR C</b> )
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) ( <b>LRR B</b> )
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) ( <b>LRR C</b> )	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) ( <b>LRR D</b> )	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present?

Yes ☐

No ☐

X ☐

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

Secondary Indicators (2 or more required)

<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) ( <b>Riverine</b> )
<input type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) ( <b>Riverine</b> )
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) ( <b>Riverine</b> )
<input type="checkbox"/> Water Marks (B1) ( <b>Nonriverine</b> )	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) ( <b>Nonriverine</b> )	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ☐ No ☐ Depth (inches):

Water Table Present? Yes ☐ No ☐ Depth (inches):

Saturation Present? Yes ☐ No ☐ Depth (inches):

(includes capillary fringe)

Wetland Hydrology Present?

Yes ☐

No ☐

X ☐

Describe Recorded Date (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:



## Sampling Site: AC06012017-1-out



**Photo Name:** Photo\_170601160341.jpg

**Direction:**

**Caption:**



**Photo Name:** Photo\_170601161127.jpg

**Direction:**

**Caption:**

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: WDC Wetland Update City/County: Davis Sampling Date: 6/1/2017  
 Applicant/Owner: UDOT State: UT Sampling Point: MP-05312016-4-OUT  
 Investigators: M. Perkins Section, Township, Range: 16 4N 2W  
 Landform (hillslope, terrace, etc.): Valley Local Relief (concave, convex, none): Convex Slope(%): 1  
 Subregion (LRR): D - Western Range and Lat: 41.086021 Long: -112.078819 Datum: WGS84  
 Soil Map Unit Name: Ford loam, shallow water table, 0 to 1 percent slopes NWI Classification: PEM1C

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No      (If No, explain in Remarks)  
 Are Vegetation:      Soil      or Hydrology      significantly disturbed? Are "Normal Circumstances" present? Yes X No       
 Are Vegetation:      Soil      or Hydrology      naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <u>    </u>	No <u>X</u>	Is the Sampled Area within a Wetland?	Yes <u>    </u>	No <u>X</u>
Hydric Soil Present?	Yes <u>    </u>	No <u>    </u>			
Wetland Hydrology Present?	Yes <u>    </u>	No <u>    </u>			

Remarks:  
 Upland vegetation dominated by wheatgrass. No soil pit.

## VEGETATION – Use scientific names of plants.

Tree Stratum	(Plot size: )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test Worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50.000000</u> (A/B)
1.					
2.					
3.					
4.					
				= Total Cover	
<b>Sapling/Shrub Stratum</b> (Plot size: 10)					
1.	Tamarix ramosissima	5	Yes	FAC	<b>Prevalence Index worksheet:</b> Total % Cover of: <u>    </u> Multiply by: OBL species <u>    </u> x1= <u>    </u> FACW species <u>5</u> x2= <u>10</u> FAC species <u>20</u> x3= <u>60</u> FACU species <u>    </u> x4= <u>0</u> UPL species <u>95</u> x5= <u>475</u> Column Totals: <u>120</u> (A) <u>545</u> (B)  <i>Prevalence Index = B/A= 4.54</i>
2.					
3.					
4.					
5.					
				= Total Cover	
<b>Herb Stratum</b> (Plot size: 5)					
1.	Thinopyrum intermedium	95	Yes	UPL	<b>Hydrophytic Vegetation Indicators:</b> Dominance Test is >50% Prevalence Index is ≤3.0 <sup>1</sup> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. <b>Hydrophytic Vegetation</b> Yes <u>    </u> No <u>    </u> X <u>    </u> <b>Present?</b>
2.	Dipsacus fullonum	5	No	FAC	
3.	Distichlis spicata	5	No	FAC	
4.	Rumex crispus	5	No	FAC	
5.	Conium maculatum	5	No	FACW	
6.					
7.					
8.					
				= Total Cover	
<b>Woody Vine Stratum</b> (Plot size: )					
1.					
2.					
				= Total Cover	
% Bare Ground in Herb Stratum	<u>0</u>	% Cover of Biotic Crust	<u>0</u>		

Remarks:

SOIL

Sampling Point: MP-05312016-4-OUT

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		

<sup>1</sup>Type: C= Concentration, D= Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

Indicators for Problematic Hydric Soils<sup>3</sup>:

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) ( <b>LRR C</b> )
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) ( <b>LRR B</b> )
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) ( <b>LRR C</b> )	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) ( <b>LRR D</b> )	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present?

Yes ☐ No ☐

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (2 or more required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) ( <b>Riverine</b> )
<input type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) ( <b>Riverine</b> )
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) ( <b>Riverine</b> )
<input type="checkbox"/> Water Marks (B1) ( <b>Nonriverine</b> )	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) ( <b>Nonriverine</b> )	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ☐ No ☐ Depth (inches):

Water Table Present? Yes ☐ No ☐ Depth (inches):

Saturation Present? Yes ☐ No ☐ Depth (inches):

(includes capillary fringe)

Wetland Hydrology Present?

Yes ☐ No ☐

Describe Recorded Date (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:



**Sampling Site:** MP-05312016-4-OUT



**Photo Name:** Photo\_170531181027.jpg

**Direction:**

**Caption:**

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: WDC Wetland Update City/County: Davis Sampling Date: 5/31/2017  
 Applicant/Owner: UDOT State: UT Sampling Point: MP-05312016-1-OUT-3  
 Investigators: M. Perkins Section, Township, Range: 21 4N 2W  
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): Concave Slope(%): 1  
 Subregion (LRR): D - Western Range and Lat: 41.074158 Long: -112.068047 Datum: WGS84  
 Soil Map Unit Name: \_\_\_\_\_ NWI Classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation: \_\_\_\_\_ Soil \_\_\_\_\_ or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation: \_\_\_\_\_ Soil \_\_\_\_\_ or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <u>X</u>	No _____	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u>
Hydric Soil Present?	Yes _____	No <u>X</u>	
Wetland Hydrology Present?	Yes _____	No <u>X</u>	

Remarks:  
 Sampling point in Juncus stand is not a wetland because wetland hydrology and hydric soils are not indicated. Located in a low area relative to this portion of field but not as low as wetland areas.

## VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test Worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.00000</u> (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
			= Total Cover	
<b>Sapling/Shrub Stratum (Plot size: )</b>				
1. _____	_____	_____	_____	<b>Prevalence Index worksheet:</b> <u>Total % Cover of:</u> _____ <u>Multiply by:</u> _____ OBL species _____ x1= _____ FACW species <u>110</u> x2= <u>220</u> FAC species _____ x3= <u>0</u> FACU species _____ x4= <u>0</u> UPL species _____ x5= <u>0</u> Column Totals: <u>110</u> (A) <u>220</u> (B)  <i>Prevalence Index = B/A=</i> <u>2.00</u>
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
			= Total Cover	
<b>Herb Stratum (Plot size: 5)</b>				
1. <u>Juncus balticus</u>	<u>60</u>	<u>Yes</u>	<u>FACW</u>	<b>Hydrophytic Vegetation Indicators:</b> <u>X</u> Dominance Test is >50% <u>X</u> Prevalence Index is ≤3.0 <sup>1</sup> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. <b>Hydrophytic Vegetation Present?</b> Yes <u>X</u> No _____
2. <u>Carex praegracilis</u>	<u>50</u>	<u>Yes</u>	<u>FACW</u>	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
			<u>110</u> = Total Cover	
<b>Woody Vine Stratum (Plot size: )</b>				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
			= Total Cover	
% Bare Ground in Herb Stratum <u>5</u>	% Cover of Biotic Crust <sup>0</sup> _____			

Remarks:

SOIL

Sampling Point: MP-05312016-1-OUT-3

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-2	10YR 4/3	100					Organic	
2-9	7.5YR 4/2	100					Silty Clay	
9-20	7.5YR 5/3	100					Clay Loam	

<sup>1</sup>Type: C= Concentration, D= Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

Indicators for Problematic Hydric Soils<sup>3</sup>:

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) ( <b>LRR C</b> )
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) ( <b>LRR B</b> )
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) ( <b>LRR C</b> )	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) ( <b>LRR D</b> )	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present?

Yes ☐ No ☐ X ☐

Remarks:

No indicators observed in profile.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

Secondary Indicators (2 or more required)

<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) ( <b>Riverine</b> )
<input type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) ( <b>Riverine</b> )
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) ( <b>Riverine</b> )
<input type="checkbox"/> Water Marks (B1) ( <b>Nonriverine</b> )	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) ( <b>Nonriverine</b> )	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input checked="" type="checkbox"/> FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ☐ No ☒ X ☐ Depth (inches):

Water Table Present? Yes ☐ No ☒ X ☐ Depth (inches):

Saturation Present? Yes ☐ No ☒ X ☐ Depth (inches):

(includes capillary fringe)

Wetland Hydrology Present? Yes ☐ No ☐ X ☒

Describe Recorded Date (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Soils slightly moist but not saturated.



**Sampling Site: MP-05312016-1-OUT-3**



**Photo Name:** Photo\_170531125155.jpg

**Direction:**

**Caption:**



**Photo Name:** Photo\_170531125210.jpg

**Direction:**

**Caption:**

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: WDC Wetland Update City/County: Davis Sampling Date: 5/23/2017  
 Applicant/Owner: UDOT State: UT Sampling Point: MP-05232017-1-OUT  
 Investigators: M. Perkins Section, Township, Range: 25 3N 1W  
 Landform (hillslope, terrace, etc.): Basin Local Relief (concave, convex, none): Convex Slope(%): 3  
 Subregion (LRR): D - Western Range and Lat: 40.964130 Long: -111.892067 Datum: WGS84  
 Soil Map Unit Name: Draper loam, drained, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation: \_\_\_\_\_ Soil \_\_\_\_\_ or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation: \_\_\_\_\_ Soil \_\_\_\_\_ or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b>	Yes _____ No <u>X</u>
Hydric Soil Present?	Yes _____	No <u>X</u>		
Wetland Hydrology Present?	Yes _____	No <u>X</u>		

Remarks:  
 Upland vegetation here. No soil pit dug.

## VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test Worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: _____ 0 (A) Total Number of Dominant Species Across All Strata: _____ 2 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ 0.0000000 (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
_____ = Total Cover	_____	_____	_____	
<b>Sapling/Shrub Stratum (Plot size: )</b>				
1. _____	_____	_____	_____	<b>Hydrophytic Vegetation Indicators:</b> Dominance Test is >50% _____ Prevalence Index is ≤3.0 <sup>1</sup> _____ Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) _____  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
_____ = Total Cover	_____	_____	_____	
<b>Herb Stratum (Plot size: 5)</b>				
1. <u>Cardaria draba</u>	<u>40</u>	<u>Yes</u>	<u>UPL</u>	<b>Hydrophytic</b> <b>Vegetation Present?</b> Yes _____ No _____ X _____
2. <u>Festuca pratensis</u>	<u>20</u>	<u>Yes</u>	<u>FACU</u>	
3. <u>Dipsacus fullonum</u>	<u>5</u>	<u>No</u>	<u>FAC</u>	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	<b>Hydrophytic</b> <b>Vegetation Present?</b> Yes _____ No _____ X _____
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
_____ = Total Cover	<u>65</u>	_____	_____	
<b>Woody Vine Stratum (Plot size: )</b>				
1. _____	_____	_____	_____	<b>Hydrophytic</b> <b>Vegetation Present?</b> Yes _____ No _____ X _____
2. _____	_____	_____	_____	
_____ = Total Cover	_____	_____	_____	
% Bare Ground in Herb Stratum <u>30</u>	_____	% Cover of Biotic Crust _____	_____	
Remarks:	Upland vegetation.			

SOIL

Sampling Point: MP-05232017-1-OUT

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		

<sup>1</sup>Type: C= Concentration, D= Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

Indicators for Problematic Hydric Soils<sup>3</sup>:

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) ( <b>LRR C</b> )
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) ( <b>LRR B</b> )
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) ( <b>LRR C</b> )	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) ( <b>LRR D</b> )	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present?

Yes ☐ No ☐ X ☐

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

Secondary Indicators (2 or more required)

<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) ( <b>Riverine</b> )
<input type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) ( <b>Riverine</b> )
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) ( <b>Riverine</b> )
<input type="checkbox"/> Water Marks (B1) ( <b>Nonriverine</b> )	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) ( <b>Nonriverine</b> )	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ☐ No ☐ Depth (inches):

Water Table Present? Yes ☐ No ☐ Depth (inches):

Saturation Present? Yes ☐ No ☐ Depth (inches):

(includes capillary fringe)

Wetland Hydrology Present?

Yes ☐ No ☐ X ☐

Describe Recorded Date (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:



**Sampling Site:** MP-05232017-1-OUT



**Photo Name:** Photo\_170523123940.jpg

**Direction:**

**Caption:**

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: WDC Wetland Update City/County: Davis Sampling Date: 5/31/2017  
 Applicant/Owner: UDOT State: UT Sampling Point: MP-05312016-2-OUT-2  
 Investigators: M. Perkins Section, Township, Range: 16 4N 2W  
 Landform (hillslope, terrace, etc.): Valley Local Relief (concave, convex, none): Concave Slope(%): 1  
 Subregion (LRR): D - Western Range and Lat: 41.077518 Long: -112.072922 Datum: WGS84  
 Soil Map Unit Name: Ford loam, shallow water table, 0 to 1 percent slopes NWI Classification: PEM1A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No      (If No, explain in Remarks)  
 Are Vegetation:      Soil      or Hydrology      significantly disturbed? Are "Normal Circumstances" present? Yes X No       
 Are Vegetation:      Soil      or Hydrology      naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <u>X</u>	No <u>    </u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>    </u> No <u>X</u>
Hydric Soil Present?	Yes <u>    </u>	No <u>X</u>	
Wetland Hydrology Present?	Yes <u>X</u>	No <u>    </u>	

Remarks:  
 Sampling point in low area of irrigated pasture is not a wetland. Areas to north and south are comprised of less promising vegetation (mainly dominated by meadow fescue).

## VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test Worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.00000</u> (A/B)
1. <u>    </u>	<u>    </u>	<u>    </u>	<u>    </u>	
2. <u>    </u>	<u>    </u>	<u>    </u>	<u>    </u>	
3. <u>    </u>	<u>    </u>	<u>    </u>	<u>    </u>	
4. <u>    </u>	<u>    </u>	<u>    </u>	<u>    </u>	
		= Total Cover		
<b>Sapling/Shrub Stratum (Plot size: )</b>				<b>Prevalence Index worksheet:</b> Total % Cover of: <u>    </u> Multiply by: <u>    </u> OBL species <u>    </u> x1= <u>    </u> FACW species <u>60</u> x2= <u>120</u> FAC species <u>40</u> x3= <u>120</u> FACU species <u>10</u> x4= <u>40</u> UPL species <u>    </u> x5= <u>0</u> Column Totals: <u>110</u> (A) <u>280</u> (B)  <i>Prevalence Index = B/A = 2.55</i>
1. <u>    </u>	<u>    </u>	<u>    </u>	<u>    </u>	
2. <u>    </u>	<u>    </u>	<u>    </u>	<u>    </u>	
3. <u>    </u>	<u>    </u>	<u>    </u>	<u>    </u>	
4. <u>    </u>	<u>    </u>	<u>    </u>	<u>    </u>	
		= Total Cover		
<b>Herb Stratum (Plot size: 5)</b>				<b>Hydrophytic Vegetation Indicators:</b> X Dominance Test is >50% X Prevalence Index is ≤3.0 <sup>1</sup> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.  <b>Hydrophytic Vegetation Present?</b> Yes <u>X</u> No <u>    </u>
1. <u>Hordeum jubatum</u>	<u>40</u>	<u>Yes</u>	<u>FAC</u>	
2. <u>Puccinellia nuttalliana</u>	<u>40</u>	<u>Yes</u>	<u>FACW</u>	
3. <u>Festuca pratensis</u>	<u>10</u>	<u>No</u>	<u>FACU</u>	
4. <u>Carex praegracilis</u>	<u>10</u>	<u>No</u>	<u>FACW</u>	
5. <u>Juncus balticus</u>	<u>10</u>	<u>No</u>	<u>FACW</u>	
6. <u>    </u>	<u>    </u>	<u>    </u>	<u>    </u>	
7. <u>    </u>	<u>    </u>	<u>    </u>	<u>    </u>	
8. <u>    </u>	<u>    </u>	<u>    </u>	<u>    </u>	
		= Total Cover		
<b>Woody Vine Stratum (Plot size: )</b>				
1. <u>    </u>	<u>    </u>	<u>    </u>	<u>    </u>	
2. <u>    </u>	<u>    </u>	<u>    </u>	<u>    </u>	
		= Total Cover		
% Bare Ground in Herb Stratum <u>0</u>	% Cover of Biotic Crust <u>0</u>			

Remarks:

SOIL

Sampling Point: MP-05312016-2-OUT-2

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-3	7.5YR 4/3	100					Loam	
3-10	10YR 4/2	100					Silty Clay	
10-16	10YR 4/2	90	7.5YR 6/2	10	D	M	Clay Loam	

<sup>1</sup>Type: C= Concentration, D= Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

Indicators for Problematic Hydric Soils<sup>3</sup>:

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) ( <b>LRR C</b> )
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) ( <b>LRR B</b> )
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) ( <b>LRR C</b> )	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) ( <b>LRR D</b> )	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

Restrictive Layer (if present):

Type: Calcic

Depth (inches): 16

Hydric Soil Present?

Yes

No

X

Remarks:

No indicators observed in profile.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

Secondary Indicators (2 or more required)

<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) ( <b>Riverine</b> )
<input type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) ( <b>Riverine</b> )
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) ( <b>Riverine</b> )
<input type="checkbox"/> Water Marks (B1) ( <b>Nonriverine</b> )	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) ( <b>Nonriverine</b> )	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input checked="" type="checkbox"/> FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes No X Depth (inches):

Water Table Present? Yes No X Depth (inches):

Saturation Present? Yes X No Depth (inches): 8.0

(includes capillary fringe)

Wetland Hydrology Present?

Yes

X

No

Describe Recorded Date (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Irrigated pasture. Adjacent to field ditch with water.



**Sampling Site:** MP-05312016-2-OUT-2



**Photo Name:** Photo\_170531162227.jpg

**Direction:**

**Caption:**



**Photo Name:** Photo\_170531162219.jpg

**Direction:**

**Caption:**

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: WDC Wetland Update City/County: Davis Sampling Date: 6/1/2017  
 Applicant/Owner: UDOT State: UT Sampling Point: MPAC-06012017-1-IN  
 Investigators: M. Perkins, A. Croft Section, Township, Range: 05 4N 2W  
 Landform (hillslope, terrace, etc.): Terrace Tread Local Relief (concave, convex, none): Convex Slope(%): 3  
 Subregion (LRR): D - Western Range and Lat: 41.109409 Long: -112.098785 Datum: WGS84  
 Soil Map Unit Name: Ford loam, shallow water table, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation: \_\_\_\_\_ Soil \_\_\_\_\_ or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation: \_\_\_\_\_ Soil \_\_\_\_\_ or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <u>X</u>	No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____
Hydric Soil Present?	Yes <u>X</u>	No _____	
Wetland Hydrology Present?	Yes <u>X</u>	No _____	

Remarks:  
 Sampling point is a wetland.

## VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test Worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.00000</u> (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
			= Total Cover	
<u>Sapling/Shrub Stratum</u> (Plot size: )				<b>Prevalence Index worksheet:</b> <u>Total % Cover of:</u> _____ <u>Multiply by:</u> _____ OBL species _____ x1= _____ FACW species <u>75</u> x2= <u>150</u> FAC species <u>40</u> x3= <u>120</u> FACU species _____ x4= <u>0</u> UPL species _____ x5= <u>0</u> Column Totals: <u>115</u> (A) <u>270</u> (B)  <i>Prevalence Index = B/A=</i> <u>2.35</u>
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
			= Total Cover	
<u>Herb Stratum</u> (Plot size: 5)				<b>Hydrophytic Vegetation Indicators:</b> X Dominance Test is >50% X Prevalence Index is ≤3.0 <sup>1</sup> _____ Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. <b>Hydrophytic Vegetation Present?</b> Yes <u>X</u> No _____
1. <u>Phalaris arundinacea</u>	<u>75</u>	Yes	FACW	
2. <u>Distichlis spicata</u>	<u>40</u>	Yes	FAC	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
			= Total Cover	
<u>Woody Vine Stratum</u> (Plot size: )				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
			= Total Cover	
% Bare Ground in Herb Stratum <u>0</u>	% Cover of Biotic Crust <sup>0</sup> _____			

Remarks:

SOIL

Sampling Point: MPAC-06012017-1-IN

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-12	10YR 3/2	100					Silty Clay	
12-20			G1 2.5/N	3	C	M		Mn
12-20	10YR4/2	95	7.5YR 6/8	2	C	M	Sandy Clay	

<sup>1</sup>Type: C= Concentration, D= Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

Indicators for Problematic Hydric Soils<sup>3</sup>:

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input checked="" type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present?

Yes

☒ X

No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

Secondary Indicators (2 or more required)

<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input checked="" type="checkbox"/> X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ☐ No ☒ X Depth (inches):

Water Table Present? Yes ☐ No ☒ X Depth (inches):

Saturation Present? Yes ☒ X No ☐ Depth (inches):  10.0

(includes capillary fringe)

Wetland Hydrology Present?

Yes

☒ X

No

Describe Recorded Date (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:



**Sampling Site:** MPAC-06012017-1-IN



**Photo Name:** Photo\_170601111152.jpg

**Direction:**

**Caption:**



**Photo Name:** Photo\_170601110937.jpg

**Direction:**

**Caption:**

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: WDC Wetland Update City/County: Davis Sampling Date: 5/23/2017  
 Applicant/Owner: UDOT State: UT Sampling Point: MP-05232017-2-IN  
 Investigators: M. Perkins Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Valley Local Relief (concave, convex, none): Concave Slope(%): 2  
 Subregion (LRR): D - Western Range and Lat: 40.954754 Long: -111.893913 Datum: WGS84  
 Soil Map Unit Name: \_\_\_\_\_ NWI Classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation: \_\_\_\_\_ Soil \_\_\_\_\_ or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation: \_\_\_\_\_ Soil \_\_\_\_\_ or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <u>X</u>	No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____
Hydric Soil Present?	Yes <u>X</u>	No _____	
Wetland Hydrology Present?	Yes <u>X</u>	No _____	

Remarks:  
 Sampling point is a wetland.

## VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test Worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.00000</u> (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
			= Total Cover	
<u>Sapling/Shrub Stratum</u> (Plot size: )				<b>Prevalence Index worksheet:</b> <u>Total % Cover of:</u> _____ <u>Multiply by:</u> _____ OBL species _____ x1= _____ FACW species <u>20</u> x2= <u>40</u> FAC species <u>80</u> x3= <u>240</u> FACU species _____ x4= <u>0</u> UPL species <u>10</u> x5= <u>50</u> Column Totals: <u>110</u> (A) <u>330</u> (B)  <i>Prevalence Index = B/A=</i> <u>3.00</u>
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
			= Total Cover	
<u>Herb Stratum</u> (Plot size: 5)				<b>Hydrophytic Vegetation Indicators:</b> X Dominance Test is >50% X Prevalence Index is ≤3.0 <sup>1</sup> _____ Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.  <b>Hydrophytic Vegetation Present?</b> Yes <u>X</u> No _____
1. <u>Distichlis spicata</u>	<u>80</u>	<u>Yes</u>	<u>FAC</u>	
2. <u>Carex praegracilis</u>	<u>20</u>	<u>No</u>	<u>FACW</u>	
3. <u>Cardaria draba</u>	<u>10</u>	<u>No</u>	<u>UPL</u>	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
			= Total Cover	
<u>Woody Vine Stratum</u> (Plot size: )				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
			= Total Cover	
% Bare Ground in Herb Stratum <u>10</u>	% Cover of Biotic Crust <sup>0</sup> _____			

Remarks:  
 Hydrophytic community.

SOIL

Sampling Point: MP-05232017-2-IN

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-1	10YR 3/2	100					Organic	
1-9	10YR 2/2	100					Silt Loam	
9-20	10YR 6/2	100					Clay Loam	

<sup>1</sup>Type: C= Concentration, D= Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)			Indicators for Problematic Hydric Soils <sup>3</sup> :		
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)		<input type="checkbox"/> 1 cm Muck (A9) (LRR C)		
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)		<input type="checkbox"/> 2 cm Muck (A10) (LRR B)		
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)		<input type="checkbox"/> Reduced Vertic (F18)		
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)		<input type="checkbox"/> Red Parent Material (TF2)		
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input checked="" type="checkbox"/> Depleted Matrix (F3)		<input type="checkbox"/> Other (Explain in Remarks)		
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)				
<input checked="" type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)				
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)				
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)				
<input type="checkbox"/> Sandy Gleyed Matrix (S4)					

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

<b>Restrictive Layer (if present):</b> Type: _____ Depth (inches): _____	<b>Hydric Soil Present?</b> Yes <input checked="" type="checkbox"/> No    _____
--	---

Remarks:  
Profile fits A11 and F3.

HYDROLOGY

Wetland Hydrology Indicators:					
Primary Indicators (minimum of one required; check all that apply)			Secondary Indicators (2 or more required)		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) ( <b>Riverine</b> )			
<input type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) ( <b>Riverine</b> )			
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) ( <b>Riverine</b> )			
<input type="checkbox"/> Water Marks (B1) ( <b>Nonriverine</b> )	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)			
<input type="checkbox"/> Sediment Deposits (B2) ( <b>Nonriverine</b> )	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)			
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)			
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)			
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input checked="" type="checkbox"/> FAC-Neutral Test (D5)			
<b>Field Observations:</b> Surface Water Present?    Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present?    Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present?    Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): _____ 10.0 (includes capillary fringe)			<b>Wetland Hydrology Present?</b> Yes <input checked="" type="checkbox"/> No    _____		

Describe Recorded Date (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:  
Site drier out versus a couple weeks ago but still indicates hydrology.



**Sampling Site:** MP-05232017-2-IN



**Photo Name:** Photo\_170523134218.jpg

**Direction:**

**Caption:**



**Photo Name:** Photo\_170523134159.jpg

**Direction:**

**Caption:**

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: WDC Wetland Update City/County: Davis Sampling Date: 6/1/2017  
 Applicant/Owner: UDOT State: UT Sampling Point: MP-06012017-3-OUT-2  
 Investigators: M. Perkins Section, Township, Range: 05 4N 2W  
 Landform (hillslope, terrace, etc.): Terrace Tread Local Relief (concave, convex, none): Convex Slope(%): 3  
 Subregion (LRR): D - Western Range and Lat: 41.110607 Long: -112.099861 Datum: WGS84  
 Soil Map Unit Name: Ford loam, shallow water table, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation: \_\_\_\_\_ Soil \_\_\_\_\_ or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation: \_\_\_\_\_ Soil \_\_\_\_\_ or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <u>X</u>	No _____	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u>
Hydric Soil Present?	Yes _____	No <u>X</u>	
Wetland Hydrology Present?	Yes _____	No <u>X</u>	

Remarks:  
 Sampling point is not a wetland.

## VEGETATION – Use scientific names of plants.

Tree Stratum	(Plot size: )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test Worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50.000000</u> (A/B)
1.	_____	_____	_____	_____	
2.	_____	_____	_____	_____	
3.	_____	_____	_____	_____	
4.	_____	_____	_____	_____	
				= Total Cover	
<b>Sapling/Shrub Stratum</b> (Plot size: )					<b>Prevalence Index worksheet:</b> <b>Total % Cover of:</b> _____ <b>Multiply by:</b> _____ OBL species _____ x1= _____ FACW species <u>75</u> x2= <u>150</u> FAC species <u>5</u> x3= <u>15</u> FACU species _____ x4= <u>0</u> UPL species <u>30</u> x5= <u>150</u> Column Totals: <u>110</u> (A) <u>315</u> (B)
1.	_____	_____	_____	_____	
2.	_____	_____	_____	_____	
3.	_____	_____	_____	_____	
4.	_____	_____	_____	_____	
				= Total Cover	
<b>Herb Stratum</b> (Plot size: 5)					<b>Hydrophytic Vegetation Indicators:</b> Dominance Test is >50% <u>X</u> Prevalence Index is ≤3.0 <sup>1</sup> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
1.	Phalaris arundinacea	75	Yes	FACW	
2.	Cardaria draba	30	Yes	UPL	
3.	Dipsacus fullonum	5	No	FAC	
4.	_____	_____	_____	_____	
5.	_____	_____	_____	_____	
6.	_____	_____	_____	_____	
7.	_____	_____	_____	_____	
8.	_____	_____	_____	_____	
				110	= Total Cover
<b>Woody Vine Stratum</b> (Plot size: )					<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. <b>Hydrophytic Vegetation Present?</b> Yes <u>X</u> No _____
1.	_____	_____	_____	_____	
2.	_____	_____	_____	_____	
				= Total Cover	
% Bare Ground in Herb Stratum <u>0</u> % Cover of Biotic Crust <sup>0</sup> _____					

Remarks:

SOIL

Sampling Point: MP-06012017-3-OUT-2

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-20	10YR 4/3	100					Loamy Sand	

<sup>1</sup>Type: C= Concentration, D= Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

Indicators for Problematic Hydric Soils<sup>3</sup>:

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) ( <b>LRR C</b> )
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) ( <b>LRR B</b> )
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) ( <b>LRR C</b> )	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) ( <b>LRR D</b> )	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present?

Yes ☐ No ☐ X ☐

Remarks:

No indicators observed in profile.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

Secondary Indicators (2 or more required)

<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) ( <b>Riverine</b> )
<input type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) ( <b>Riverine</b> )
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) ( <b>Riverine</b> )
<input type="checkbox"/> Water Marks (B1) ( <b>Nonriverine</b> )	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) ( <b>Nonriverine</b> )	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ☐ No ☒ X ☐ Depth (inches):

Water Table Present? Yes ☐ No ☒ X ☐ Depth (inches):

Saturation Present? Yes ☐ No ☒ X ☐ Depth (inches):

(includes capillary fringe)

Wetland Hydrology Present? Yes ☐ No ☐ X ☐

Describe Recorded Date (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Dry soils.



**Sampling Site:** MP-06012017-3-OUT-2



**Photo Name:** Photo\_170601123415.jpg

**Direction:**

**Caption:**



**Photo Name:** Photo\_170601123359.jpg

**Direction:**

**Caption:**

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: WDC Wetland Update City/County: Davis Sampling Date: 5/31/2017  
 Applicant/Owner: UDOT State: UT Sampling Point: MP-05312016-1-OUT-2  
 Investigators: M. Perkins Section, Township, Range: 21 4N 2W  
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): None Slope(%):           
 Subregion (LRR): D - Western Range and Lat: 41.073792 Long: -112.068199 Datum: WGS84  
 Soil Map Unit Name: Ford loam, 0 to 1 percent slopes NWI Classification: PEM1/USA

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No          (If No, explain in Remarks)  
 Are Vegetation:          Soil          or Hydrology          significantly disturbed? Are "Normal Circumstances" present? Yes X No           
 Are Vegetation:          Soil          or Hydrology          naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No <u>        </u>	<b>Is the Sampled Area within a Wetland?</b>  Yes <u>        </u> No <u>X</u>
Hydric Soil Present? Yes <u>        </u> No <u>X</u>	
Wetland Hydrology Present? Yes <u>        </u> No <u>X</u>	

Remarks:  
 Sampling point in Juncus stand slightly higher than in point is not a wetland.

## VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet:
1. <u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	Number of Dominant Species
2. <u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	That Are OBL, FACW, or FAC: <u>        </u> 1 (A)
3. <u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	Total Number of Dominant
4. <u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	Species Across All Strata: <u>        </u> 1 (B)
	<u>        </u>	<u>        </u>	<u>        </u>	Percent of Dominant Species
	<u>        </u>	<u>        </u>	<u>        </u>	That Are OBL, FACW, or FAC: <u>        </u> 100.00000 (A/B)
<b>Sapling/Shrub Stratum (Plot size: )</b>				<b>Prevalence Index worksheet:</b>
1. <u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	<u>Total % Cover of:</u> <u>        </u> <u>Multiply by:</u> <u>        </u>
2. <u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	OBL species <u>        </u> x1= <u>        </u>
3. <u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	FACW species <u>        </u> 100 x2= <u>        </u> 200
4. <u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	FAC species <u>        </u> 10 x3= <u>        </u> 30
5. <u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	FACU species <u>        </u> x4= <u>        </u> 0
	<u>        </u>	<u>        </u>	<u>        </u>	UPL species <u>        </u> 10 x5= <u>        </u> 50
	<u>        </u>	<u>        </u>	<u>        </u>	Column Totals: <u>        </u> 120 (A) <u>        </u> 280 (B)
<b>Herb Stratum (Plot size: 5)</b>				$Prevalence\ Index = B/A = \quad 2.33$
1. <u>Juncus balticus</u>	<u>100</u>	<u>Yes</u>	<u>FACW</u>	<b>Hydrophytic Vegetation Indicators:</b>
2. <u>Atriplex micrantha</u>	<u>10</u>	<u>No</u>	<u>UPL</u>	<u>X</u> Dominance Test is >50%
3. <u>Hordeum jubatum</u>	<u>5</u>	<u>No</u>	<u>FAC</u>	<u>X</u> Prevalence Index is ≤3.0 <sup>1</sup>
4. <u>Rumex crispus</u>	<u>5</u>	<u>No</u>	<u>FAC</u>	<u>        </u> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
5. <u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	<u>        </u> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
6. <u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	
7. <u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	
8. <u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	
	<u>120</u>	<u>= Total Cover</u>		
<b>Woody Vine Stratum (Plot size: )</b>				<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. <u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	<b>Hydrophytic</b>
2. <u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	<b>Vegetation</b> Yes <u>X</u> No <u>        </u>
<b>% Bare Ground in Herb Stratum</b> <u>0</u> <b>% Cover of Biotic Crust</b> <sup>0</sup> <u>        </u>				<b>Present?</b>

Remarks:

SOIL

Sampling Point: MP-05312016-1-OUT-2

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-8	10YR 4/2	100					Silty Clay	
8-20	7.5YR 4/2	100					Clay Loam	

<sup>1</sup>Type: C= Concentration, D= Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

Indicators for Problematic Hydric Soils<sup>3</sup>:

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) ( <b>LRR C</b> )
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) ( <b>LRR B</b> )
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) ( <b>LRR C</b> )	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) ( <b>LRR D</b> )	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present?

Yes ☐

No ☐

X ☐

Remarks:

No indicators observed in profile.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

Secondary Indicators (2 or more required)

<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) ( <b>Riverine</b> )
<input type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) ( <b>Riverine</b> )
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) ( <b>Riverine</b> )
<input type="checkbox"/> Water Marks (B1) ( <b>Nonriverine</b> )	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) ( <b>Nonriverine</b> )	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input checked="" type="checkbox"/> FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches):

Water Table Present? Yes ☐ No ☒ Depth (inches):

Saturation Present? Yes ☐ No ☒ Depth (inches):

(includes capillary fringe)

Wetland Hydrology Present? Yes ☐ No ☐ X ☒

Describe Recorded Date (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Soils slightly moist but not saturated.



**Sampling Site:** MP-05312016-1-OUT-2



**Photo Name:** Photo\_170531123118.jpg

**Direction:**

**Caption:**



**Photo Name:** Photo\_170531123138.jpg

**Direction:**

**Caption:**

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: WDC Wetland Update City/County: Davis Sampling Date: 5/31/2017  
 Applicant/Owner: UDOT State: UT Sampling Point: MP-05312016-3-OUT-2  
 Investigators: M. Perkins Section, Township, Range: 16 4N 2W  
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): None Slope(%):           
 Subregion (LRR): D - Western Range and Lat: 41.080643 Long: -112.073349 Datum: WGS84  
 Soil Map Unit Name: Ford loam, shallow water table, 0 to 1 percent slopes NWI Classification: PEM1C

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No          (If No, explain in Remarks)  
 Are Vegetation:          Soil          or Hydrology          significantly disturbed? Are "Normal Circumstances" present? Yes X No           
 Are Vegetation:          Soil          or Hydrology          naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <u>        </u>	No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>        </u> No <u>X</u>
Hydric Soil Present?	Yes <u>        </u>	No <u>        </u>	
Wetland Hydrology Present?	Yes <u>        </u>	No <u>        </u>	

Remarks:  
 Upland vegetation. No soil pit.

## VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test Worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>        </u> 1 (A) Total Number of Dominant Species Across All Strata: <u>        </u> 2 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50.000000</u> (A/B)
1. <u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	
2. <u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	
3. <u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	
4. <u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	
		= Total Cover		
<u>Sapling/Shrub Stratum</u> (Plot size: )				<b>Prevalence Index worksheet:</b> <u>Total % Cover of:</u> <u>        </u> <u>Multiply by:</u> <u>        </u> OBL species <u>        </u> x1= <u>        </u> FACW species <u>        </u> x2= <u>        </u> 0 FAC species <u>30</u> x3= <u>        </u> 90 FACU species <u>65</u> x4= <u>        </u> 260 UPL species <u>        </u> x5= <u>        </u> 0 Column Totals: <u>95</u> (A) <u>350</u> (B)  <i>Prevalence Index = B/A=</i> <u>3.68</u>
1. <u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	
2. <u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	
3. <u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	
4. <u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	
5. <u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	
		= Total Cover		
<u>Herb Stratum</u> (Plot size: 5)				<b>Hydrophytic Vegetation Indicators:</b> Dominance Test is >50% Prevalence Index is ≤3.0 <sup>1</sup> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
1. <u>Festuca pratensis</u>	<u>65</u>	<u>Yes</u>	<u>FACU</u>	
2. <u>Trifolium fragiferum</u>	<u>30</u>	<u>Yes</u>	<u>FAC</u>	
3. <u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	
4. <u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	
5. <u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	
6. <u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	
7. <u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	
8. <u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	
	<u>95</u>	= Total Cover		
<u>Woody Vine Stratum</u> (Plot size: )				<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. <u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	
2. <u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	
		= Total Cover		
% Bare Ground in Herb Stratum <u>10</u>		% Cover of Biotic Crust <sup>0</sup> <u>        </u>		<b>Hydrophytic Vegetation</b> Yes <u>        </u> No <u>        </u> X <u>        </u> <b>Present?</b>

Remarks:

SOIL

Sampling Point: MP-05312016-3-OUT-2

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		

<sup>1</sup>Type: C= Concentration, D= Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

Indicators for Problematic Hydric Soils<sup>3</sup>:

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) ( <b>LRR C</b> )
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) ( <b>LRR B</b> )
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) ( <b>LRR C</b> )	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) ( <b>LRR D</b> )	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present?

Yes ☐ No ☐

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (2 or more required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) ( <b>Riverine</b> )
<input type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) ( <b>Riverine</b> )
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) ( <b>Riverine</b> )
<input type="checkbox"/> Water Marks (B1) ( <b>Nonriverine</b> )	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) ( <b>Nonriverine</b> )	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ☐ No ☐ Depth (inches):

Water Table Present? Yes ☐ No ☐ Depth (inches):

Saturation Present? Yes ☐ No ☐ Depth (inches):

(includes capillary fringe)

Wetland Hydrology Present?

Yes ☐ No ☐

Describe Recorded Date (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:



**Sampling Site:** MP-05312016-3-OUT-2



**Photo Name:** Photo\_170531170101.jpg

**Direction:**

**Caption:**

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: WDC Wetland Update City/County: Davis Sampling Date: 5/12/2017  
 Applicant/Owner: UDOT State: UT Sampling Point: MP-05122017-1-OUT  
 Investigators: M. Perkins Section, Township, Range: 22 4N 2W  
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): \_\_\_\_\_ Slope(%): \_\_\_\_\_  
 Subregion (LRR): D - Western Range and Lat: 41.066628 Long: -112.061096 Datum: WGS84  
 Soil Map Unit Name: Ford loam, 0 to 1 percent slopes NWI Classification: PEM1/USA

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation: \_\_\_\_\_ Soil \_\_\_\_\_ or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation: \_\_\_\_\_ Soil \_\_\_\_\_ or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u>
Hydric Soil Present?	Yes _____ No _____	
Wetland Hydrology Present?	Yes _____ No _____	
Remarks: Non-wetland vegetation. No soil pit.		

## VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test Worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: _____ 0 (A) Total Number of Dominant Species Across All Strata: _____ 1 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ 0.0000000 (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
	_____	= Total Cover	_____	
<u>Sapling/Shrub Stratum</u> (Plot size: )				<b>Prevalence Index worksheet:</b> <u>Total % Cover of:</u> _____ <u>Multiply by:</u> _____ OBL species _____ x1= _____ FACW species _____ x2= _____ 0 FAC species _____ 10 x3= _____ 30 FACU species _____ 75 x4= _____ 300 UPL species _____ x5= _____ 0 Column Totals: _____ 85 (A) _____ 330 (B)  <i>Prevalence Index = B/A=</i> _____ 3.88
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
	_____	= Total Cover	_____	
<u>Herb Stratum</u> (Plot size: )				<b>Hydrophytic Vegetation Indicators:</b> Dominance Test is >50% Prevalence Index is ≤3.0 <sup>1</sup> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
1. <u>Hordeum pusillum</u>	75	Yes	FACU	
2. <u>Distichlis spicata</u>	10	No	FAC	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
	85	= Total Cover	_____	
<u>Woody Vine Stratum</u> (Plot size: )				<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
	_____	= Total Cover	_____	
% Bare Ground in Herb Stratum _____	% Cover of Biotic Crust _____			<b>Hydrophytic Vegetation</b> Yes _____ No _____ X _____ <b>Present?</b>

Remarks:

SOIL

Sampling Point: MP-05122017-1-OUT

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		

<sup>1</sup>Type: C= Concentration, D= Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators for Problematic Hydric Soils <sup>3</sup> :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) ( <b>LRR C</b> )
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) ( <b>LRR B</b> )
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) ( <b>LRR C</b> )	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) ( <b>LRR D</b> )	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

<b>Restrictive Layer (if present):</b> Type: _____ Depth (inches): _____	<b>Hydric Soil Present?</b> Yes _____ No _____
--	--

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:					
Primary Indicators (minimum of one required; check all that apply)			Secondary Indicators (2 or more required)		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) ( <b>Riverine</b> )			
<input type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) ( <b>Riverine</b> )			
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) ( <b>Riverine</b> )			
<input type="checkbox"/> Water Marks (B1) ( <b>Nonriverine</b> )	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)			
<input type="checkbox"/> Sediment Deposits (B2) ( <b>Nonriverine</b> )	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)			
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)			
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)			
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> FAC-Neutral Test (D5)			
<b>Field Observations:</b> Surface Water Present?    Yes _____ No _____    Depth (inches): _____ Water Table Present?    Yes _____ No _____    Depth (inches): _____ Saturation Present?    Yes _____ No _____    Depth (inches): _____ (includes capillary fringe)			<b>Wetland Hydrology Present?</b> Yes _____ No _____		

Describe Recorded Date (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:



# WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: WDC Wetland Update City/County: Davis Sampling Date: 5/23/2017  
 Applicant/Owner: UDOT State: UT Sampling Point: MP-05232017-3-OUT  
 Investigators: M. Perkins Section, Township, Range: 36 3N 1W  
 Landform (hillslope, terrace, etc.): Valley Local Relief (concave, convex, none): Convex Slope(%): 1  
 Subregion (LRR): D - Western Range and Lat: 40.956577 Long: -111.893929 Datum: WGS84  
 Soil Map Unit Name: Cudahy silt loam, 0 to 1 percent slopes NWI Classification: PEM1C

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No      (If No, explain in Remarks)  
 Are Vegetation:      Soil      or Hydrology      significantly disturbed? Are "Normal Circumstances" present? Yes X No       
 Are Vegetation:      Soil      or Hydrology      naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <u>    </u>	No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>    </u> No <u>X</u>
Hydric Soil Present?	Yes <u>    </u>	No <u>    </u>	
Wetland Hydrology Present?	Yes <u>    </u>	No <u>    </u>	

Remarks:  
 Clearly upland vegetation so no soil pit dug.

## VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test Worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0.0000000</u> (A/B)
1. <u>    </u>	<u>    </u>	<u>    </u>	<u>    </u>	
2. <u>    </u>	<u>    </u>	<u>    </u>	<u>    </u>	
3. <u>    </u>	<u>    </u>	<u>    </u>	<u>    </u>	
4. <u>    </u>	<u>    </u>	<u>    </u>	<u>    </u>	
		= Total Cover		
<u>Sapling/Shrub Stratum</u> (Plot size: )				<b>Prevalence Index worksheet:</b> <u>Total % Cover of:</u> <u>    </u> <u>Multiply by:</u> <u>    </u> OBL species <u>    </u> x1= <u>    </u> FACW species <u>10</u> x2= <u>20</u> FAC species <u>20</u> x3= <u>60</u> FACU species <u>    </u> x4= <u>0</u> UPL species <u>75</u> x5= <u>375</u> Column Totals: <u>105</u> (A) <u>455</u> (B)  <i>Prevalence Index = B/A=</i> <u>4.33</u>
1. <u>    </u>	<u>    </u>	<u>    </u>	<u>    </u>	
2. <u>    </u>	<u>    </u>	<u>    </u>	<u>    </u>	
3. <u>    </u>	<u>    </u>	<u>    </u>	<u>    </u>	
4. <u>    </u>	<u>    </u>	<u>    </u>	<u>    </u>	
5. <u>    </u>	<u>    </u>	<u>    </u>	<u>    </u>	
		= Total Cover		
<u>Herb Stratum</u> (Plot size: 10)				<b>Hydrophytic Vegetation Indicators:</b> Dominance Test is >50% Prevalence Index is ≤3.0 <sup>1</sup> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
1. <u>Thinopyrum ponticum</u>	<u>50</u>	<u>Yes</u>	<u>UPL</u>	
2. <u>Cardaria draba</u>	<u>25</u>	<u>Yes</u>	<u>UPL</u>	
3. <u>Hordeum jubatum</u>	<u>20</u>	<u>No</u>	<u>FAC</u>	
4. <u>Puccinellia nuttalliana</u>	<u>10</u>	<u>No</u>	<u>FACW</u>	
5. <u>    </u>	<u>    </u>	<u>    </u>	<u>    </u>	
6. <u>    </u>	<u>    </u>	<u>    </u>	<u>    </u>	
7. <u>    </u>	<u>    </u>	<u>    </u>	<u>    </u>	
8. <u>    </u>	<u>    </u>	<u>    </u>	<u>    </u>	
	<u>105</u>	= Total Cover		
<u>Woody Vine Stratum</u> (Plot size: )				<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. <u>    </u>	<u>    </u>	<u>    </u>	<u>    </u>	
2. <u>    </u>	<u>    </u>	<u>    </u>	<u>    </u>	
		= Total Cover		
% Bare Ground in Herb Stratum <u>15</u>		% Cover of Biotic Crust <sup>0</sup> <u>    </u>		<b>Hydrophytic Vegetation</b> Yes <u>    </u> No <u>    </u> X <u>    </u> <b>Present?</b>

Remarks:  
 Upland vegetation appears previously disturbed ditch spoils.

SOIL

Sampling Point: MP-05232017-3-OUT

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		

<sup>1</sup>Type: C= Concentration, D= Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

Indicators for Problematic Hydric Soils<sup>3</sup>:

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) ( <b>LRR C</b> )
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) ( <b>LRR B</b> )
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) ( <b>LRR C</b> )	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) ( <b>LRR D</b> )	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present?

Yes ☐ No ☐

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

Secondary Indicators (2 or more required)

<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) ( <b>Riverine</b> )
<input type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) ( <b>Riverine</b> )
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) ( <b>Riverine</b> )
<input type="checkbox"/> Water Marks (B1) ( <b>Nonriverine</b> )	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) ( <b>Nonriverine</b> )	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ☐ No ☐ Depth (inches):

Water Table Present? Yes ☐ No ☐ Depth (inches):

Saturation Present? Yes ☐ No ☐ Depth (inches):

(includes capillary fringe)

Wetland Hydrology Present? Yes ☐ No ☐

Describe Recorded Date (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**Sampling Site:** MP-05232017-3-OUT



**Photo Name:** Photo\_170523144942.jpg

**Direction:**

**Caption:**



# WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: WDC Wetland Update City/County: Davis Sampling Date: 6/1/2017  
 Applicant/Owner: UDOT State: UT Sampling Point: MP-06012017-3-IN-3  
 Investigators: M. Perkins Section, Township, Range: 05 4N 2W  
 Landform (hillslope, terrace, etc.): Toeslope Local Relief (concave, convex, none): Convex Slope(%): 1  
 Subregion (LRR): D - Western Range and Lat: 41.110138 Long: -112.099876 Datum: WGS84  
 Soil Map Unit Name: Ford loam, shallow water table, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation: \_\_\_\_\_ Soil \_\_\_\_\_ or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation: \_\_\_\_\_ Soil \_\_\_\_\_ or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <u>X</u>	No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____
Hydric Soil Present?	Yes <u>X</u>	No _____	
Wetland Hydrology Present?	Yes <u>X</u>	No _____	

Remarks:  
 Sampling point is a wetland.

## VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test Worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.00000</u> (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
			= Total Cover	
<u>Sapling/Shrub Stratum</u> (Plot size: )				<b>Prevalence Index worksheet:</b> <u>Total % Cover of:</u> _____ <u>Multiply by:</u> _____ OBL species _____ x1= _____ FACW species _____ x2= <u>0</u> FAC species <u>125</u> x3= <u>375</u> FACU species _____ x4= <u>0</u> UPL species _____ x5= <u>0</u> Column Totals: <u>125</u> (A) <u>375</u> (B)  <i>Prevalence Index = B/A=</i> <u>3.00</u>
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
			= Total Cover	
<u>Herb Stratum</u> (Plot size: 5)				<b>Hydrophytic Vegetation Indicators:</b> X Dominance Test is >50% X Prevalence Index is ≤3.0 <sup>1</sup> _____ Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.  <b>Hydrophytic Vegetation Present?</b> Yes <u>X</u> No _____
1. <u>Distichlis spicata</u>	<u>60</u>	<u>Yes</u>	<u>FAC</u>	
2. <u>Dipsacus fullonum</u>	<u>50</u>	<u>Yes</u>	<u>FAC</u>	
3. <u>Lepidium latifolium</u>	<u>15</u>	<u>No</u>	<u>FAC</u>	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
			<u>125</u> = Total Cover	
<u>Woody Vine Stratum</u> (Plot size: )				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
			= Total Cover	
% Bare Ground in Herb Stratum <u>0</u>	% Cover of Biotic Crust <sup>0</sup> _____			

Remarks:

SOIL

Sampling Point: MP-06012017-3-IN-3

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-3	10YR 4/3	100					Silty Clay	
3-6	10YR 4/2	100					Silty Clay	
6-20			G1 2.5/N	5	C	M		
6-20	10YR 6/2	90	10YR 6/8	5	C	PL	Silty Clay	

<sup>1</sup>Type: C= Concentration, D= Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators for Problematic Hydric Soils <sup>3</sup> :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) ( <b>LRR C</b> )
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) ( <b>LRR B</b> )
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) ( <b>LRR C</b> )	<input checked="" type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) ( <b>LRR D</b> )	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

<b>Restrictive Layer (if present):</b> Type: _____ Depth (inches): _____	<b>Hydric Soil Present?</b> Yes <input checked="" type="checkbox"/> No    _____
--	---

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:					
Primary Indicators (minimum of one required; check all that apply)			Secondary Indicators (2 or more required)		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) ( <b>Riverine</b> )			
<input type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) ( <b>Riverine</b> )			
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) ( <b>Riverine</b> )			
<input type="checkbox"/> Water Marks (B1) ( <b>Nonriverine</b> )	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)			
<input type="checkbox"/> Sediment Deposits (B2) ( <b>Nonriverine</b> )	<input checked="" type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)			
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)			
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)			
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> FAC-Neutral Test (D5)			
<b>Field Observations:</b> Surface Water Present?    Yes <input type="checkbox"/> No <input type="checkbox"/> Depth (inches): _____ Water Table Present?    Yes <input type="checkbox"/> No <input type="checkbox"/> Depth (inches): _____ Saturation Present?    Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): _____ 10.0 (includes capillary fringe)			<b>Wetland Hydrology Present?</b> Yes <input checked="" type="checkbox"/> No    _____		

Describe Recorded Date (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**Sampling Site:** MP-06012017-3-IN-3



**Photo Name:** Photo\_170601140113.jpg

**Direction:**

**Caption:**



**Photo Name:** Photo\_170601140124.jpg

**Direction:**

**Caption:**



# WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: WDC Wetland Update City/County: Davis Sampling Date: 5/24/2017  
 Applicant/Owner: UDOT State: UT Sampling Point: MP-05242017-1-IN  
 Investigators: M. Perkins Section, Township, Range: 36 3N 1W  
 Landform (hillslope, terrace, etc.): Valley Local Relief (concave, convex, none): Concave Slope(%): 3  
 Subregion (LRR): D - Western Range and Lat: 40.955338 Long: -111.892090 Datum: WGS84  
 Soil Map Unit Name: Airport silt loam, 0 to 2 percent slopes NWI Classification: PEM1C

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No        (If No, explain in Remarks)  
 Are Vegetation:        Soil        or Hydrology        significantly disturbed? Are "Normal Circumstances" present? Yes X No         
 Are Vegetation:        Soil        or Hydrology        naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <u>X</u>	No <u>      </u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No <u>      </u>
Hydric Soil Present?	Yes <u>X</u>	No <u>      </u>	
Wetland Hydrology Present?	Yes <u>X</u>	No <u>      </u>	

Remarks:  
 Depressional wetland.

## VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test Worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.00000</u> (A/B)
1. <u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>	
2. <u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>	
3. <u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>	
4. <u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>	
		= Total Cover		
<u>Sapling/Shrub Stratum</u> (Plot size: )				<b>Prevalence Index worksheet:</b> <u>Total % Cover of:</u> <u>      </u> <u>Multiply by:</u> <u>      </u> OBL species <u>      </u> x1= <u>      </u> FACW species <u>105</u> x2= <u>210</u> FAC species <u>      </u> x3= <u>0</u> FACU species <u>      </u> x4= <u>0</u> UPL species <u>      </u> x5= <u>0</u> Column Totals: <u>105</u> (A) <u>210</u> (B)  <i>Prevalence Index = B/A=</i> <u>2.00</u>
1. <u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>	
2. <u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>	
3. <u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>	
4. <u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>	
5. <u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>	
		= Total Cover		
<u>Herb Stratum</u> (Plot size: 5)				<b>Hydrophytic Vegetation Indicators:</b> X Dominance Test is >50% X Prevalence Index is ≤3.0 <sup>1</sup> <u>      </u> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <u>      </u> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
1. <u>Juncus balticus</u>	<u>80</u>	<u>Yes</u>	<u>FACW</u>	
2. <u>Carex praegracilis</u>	<u>25</u>	<u>Yes</u>	<u>FACW</u>	
3. <u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>	
4. <u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>	
5. <u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>	
6. <u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>	
7. <u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>	
8. <u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>	
	<u>105</u>	= Total Cover		
<u>Woody Vine Stratum</u> (Plot size: )				<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. <u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>	
2. <u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>	
		= Total Cover		
% Bare Ground in Herb Stratum <u>0</u>		% Cover of Biotic Crust <u>0</u>		<b>Hydrophytic Vegetation</b> Yes <u>X</u> No <u>      </u> <b>Present?</b>

Remarks:  
 FACW dominant vegetation.

SOIL

Sampling Point: MP-05242017-1-IN

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-6	10YR 3/1	95	10YR 4/2	5	D	M	Loam	
6-14	10YR 5/1	100					Silt Loam	20% gravel
14-14	ROCK							

<sup>1</sup>Type: C= Concentration, D= Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)			Indicators for Problematic Hydric Soils <sup>3</sup> :		
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)	<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.		
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)			
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)			
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)			
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input checked="" type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)			
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)				
<input checked="" type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)				
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)				
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)				
<input type="checkbox"/> Sandy Gleyed Matrix (S4)					

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

<b>Restrictive Layer (if present):</b> Type: _____ Depth (inches): _____	<b>Hydric Soil Present?</b> Yes <input checked="" type="checkbox"/> No    _____
--	---

Remarks:  
Soils appear hydric.

HYDROLOGY

Wetland Hydrology Indicators:					
Primary Indicators (minimum of one required; check all that apply)			Secondary Indicators (2 or more required)		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) ( <b>Riverine</b> )			
<input checked="" type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) ( <b>Riverine</b> )			
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) ( <b>Riverine</b> )			
<input type="checkbox"/> Water Marks (B1) ( <b>Nonriverine</b> )	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)			
<input type="checkbox"/> Sediment Deposits (B2) ( <b>Nonriverine</b> )	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)			
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)			
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)			
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input checked="" type="checkbox"/> FAC-Neutral Test (D5)			
<b>Field Observations:</b> Surface Water Present?    Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present?    Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): _____ 13.0 Saturation Present?    Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): _____ 0.0 (includes capillary fringe)			<b>Wetland Hydrology Present?</b> Yes <input checked="" type="checkbox"/> No    _____		

Describe Recorded Date (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:  
Surface water enters wetland from channel to northeast.

**Sampling Site:** MP-05242017-1-IN



**Photo Name:** Photo\_170524152652.jpg

**Direction:**

**Caption:**



**Photo Name:** Photo\_170524152638.jpg

**Direction:**

**Caption:**



# WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: WDC Wetland Update City/County: Davis Sampling Date: 5/22/2017  
 Applicant/Owner: UDOT State: UT Sampling Point: MP-05222017-1-OUT  
 Investigators: M. Perkins Section, Township, Range: 31 3N 1E  
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): Convex Slope(%): 1  
 Subregion (LRR): D - Western Range and Lat: 40.955490 Long: -111.889870 Datum: WGS84  
 Soil Map Unit Name: \_\_\_\_\_ NWI Classification: PEM1C

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation: \_\_\_\_\_ Soil \_\_\_\_\_ or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation: \_\_\_\_\_ Soil \_\_\_\_\_ or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u>
Hydric Soil Present?	Yes _____	No <u>X</u>	
Wetland Hydrology Present?	Yes _____	No <u>X</u>	

Remarks:  
 Just above wetland where meadow fescue becomes dominant.

## VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test Worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50.000000</u> (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
			= Total Cover	
<b>Sapling/Shrub Stratum (Plot size: )</b>				
1. _____	_____	_____	_____	<b>Prevalence Index worksheet:</b> <b>Total % Cover of:</b> _____ <b>Multiply by:</b> _____ OBL species _____ x1= _____ FACW species <u>25</u> x2= <u>50</u> FAC species _____ x3= <u>0</u> FACU species <u>90</u> x4= <u>360</u> UPL species _____ x5= <u>0</u> Column Totals: <u>115</u> (A) <u>410</u> (B)  <i>Prevalence Index = B/A= 3.57</i>
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
			= Total Cover	
<b>Herb Stratum (Plot size: 5)</b>				
1. <u>Festuca pratensis</u>	<u>80</u>	<u>Yes</u>	<u>FACU</u>	<b>Hydrophytic Vegetation Indicators:</b> _____ Dominance Test is >50% _____ Prevalence Index is ≤3.0 <sup>1</sup> _____ Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. <b>Hydrophytic Vegetation Present?</b> Yes _____ No <u>X</u>
2. <u>Juncus balticus</u>	<u>25</u>	<u>Yes</u>	<u>FACW</u>	
3. <u>Malvaviscus arboreus</u>	<u>10</u>	<u>No</u>	<u>FACU</u>	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
			<u>115</u> = Total Cover	
<b>Woody Vine Stratum (Plot size: )</b>				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
			= Total Cover	
% Bare Ground in Herb Stratum <u>0</u>	% Cover of Biotic Crust <sup>0</sup> _____			

Remarks:  
 Mixed mesic pasture is not hydrophytic here as it becomes dominated by fescue above (east of) wetland.

SOIL

Sampling Point: MP-05222017-1-OUT

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-8	10YR 2/1	100					Silt Loam	
8-14	10YR 4/2	100	NO	0	RM	M	Clay Loam	No Redox
14-20	10YR 3/2	100					Loam	

<sup>1</sup>Type: C= Concentration, D= Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

Indicators for Problematic Hydric Soils<sup>3</sup>:

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) ( <b>LRR C</b> )
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) ( <b>LRR B</b> )
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) ( <b>LRR C</b> )	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) ( <b>LRR D</b> )	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present?

Yes ☐

No ☐

X ☐

Remarks:

No indicators observed in profile.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

Secondary Indicators (2 or more required)

<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) ( <b>Riverine</b> )
<input type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) ( <b>Riverine</b> )
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) ( <b>Riverine</b> )
<input type="checkbox"/> Water Marks (B1) ( <b>Nonriverine</b> )	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) ( <b>Nonriverine</b> )	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ☐ No ☒ X Depth (inches):

Water Table Present? Yes ☐ No ☒ X Depth (inches):

Saturation Present? Yes ☒ X No ☐ Depth (inches):  14.0

(includes capillary fringe)

Wetland Hydrology Present? Yes ☐ No ☐ X ☒

Describe Recorded Date (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Wetland hydrology not indicated.

**Sampling Site: MP-05222017-1-OUT**



**Photo Name:** Photo\_170522162236.jpg

**Direction:**

**Caption:**



**Photo Name:** Photo\_170522162220.jpg

**Direction:**

**Caption:**



# WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: WDC Wetland Update City/County: Davis Sampling Date: 6/1/2017  
 Applicant/Owner: UDOT State: UT Sampling Point: MP-05312016-5-IN  
 Investigators: M. Perkins Section, Township, Range: 16 4N 2W  
 Landform (hillslope, terrace, etc.): Valley Local Relief (concave, convex, none): Concave Slope(%): 3  
 Subregion (LRR): D - Western Range and Lat: 41.087051 Long: -112.080330 Datum: WGS84  
 Soil Map Unit Name: Ford loam, shallow water table, 0 to 1 percent slopes NWI Classification: PEM1C

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No      (If No, explain in Remarks)  
 Are Vegetation:      Soil      or Hydrology      significantly disturbed? Are "Normal Circumstances" present? Yes X No       
 Are Vegetation:      Soil      or Hydrology      naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <u>X</u>	No <u>    </u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No <u>    </u>
Hydric Soil Present?	Yes <u>X</u>	No <u>    </u>	
Wetland Hydrology Present?	Yes <u>X</u>	No <u>    </u>	

Remarks:

## VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test Worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.00000</u> (A/B)
1. <u>    </u>	<u>    </u>	<u>    </u>	<u>    </u>	
2. <u>    </u>	<u>    </u>	<u>    </u>	<u>    </u>	
3. <u>    </u>	<u>    </u>	<u>    </u>	<u>    </u>	
4. <u>    </u>	<u>    </u>	<u>    </u>	<u>    </u>	
			= Total Cover	
<u>Sapling/Shrub Stratum</u> (Plot size: )				<b>Prevalence Index worksheet:</b> <u>Total % Cover of:</u> <u>    </u> <u>Multiply by:</u> <u>    </u> OBL species <u>30</u> x1= <u>30</u> FACW species <u>20</u> x2= <u>40</u> FAC species <u>10</u> x3= <u>30</u> FACU species <u>    </u> x4= <u>0</u> UPL species <u>    </u> x5= <u>0</u> Column Totals: <u>60</u> (A) <u>100</u> (B)  <i>Prevalence Index = B/A=</i> <u>1.67</u>
1. <u>    </u>	<u>    </u>	<u>    </u>	<u>    </u>	
2. <u>    </u>	<u>    </u>	<u>    </u>	<u>    </u>	
3. <u>    </u>	<u>    </u>	<u>    </u>	<u>    </u>	
4. <u>    </u>	<u>    </u>	<u>    </u>	<u>    </u>	
5. <u>    </u>	<u>    </u>	<u>    </u>	<u>    </u>	
			= Total Cover	
<u>Herb Stratum</u> (Plot size: 5)				<b>Hydrophytic Vegetation Indicators:</b> X Dominance Test is >50% X Prevalence Index is ≤3.0 <sup>1</sup> <u>    </u> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <u>    </u> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.  <b>Hydrophytic Vegetation Present?</b> Yes <u>X</u> No <u>    </u>
1. <u>Schoenoplectus pungens</u>	<u>20</u>	<u>Yes</u>	<u>OBL</u>	
2. <u>Juncus balticus</u>	<u>15</u>	<u>Yes</u>	<u>FACW</u>	
3. <u>Distichlis spicata</u>	<u>10</u>	<u>No</u>	<u>FAC</u>	
4. <u>Eleocharis palustris</u>	<u>10</u>	<u>No</u>	<u>OBL</u>	
5. <u>Phragmites australis</u>	<u>5</u>	<u>No</u>	<u>FACW</u>	
6. <u>    </u>	<u>    </u>	<u>    </u>	<u>    </u>	
7. <u>    </u>	<u>    </u>	<u>    </u>	<u>    </u>	
8. <u>    </u>	<u>    </u>	<u>    </u>	<u>    </u>	
			= Total Cover	
<u>Woody Vine Stratum</u> (Plot size: )				
1. <u>    </u>	<u>    </u>	<u>    </u>	<u>    </u>	
2. <u>    </u>	<u>    </u>	<u>    </u>	<u>    </u>	
			= Total Cover	
% Bare Ground in Herb Stratum <u>25</u>		% Cover of Biotic Crust <sup>0</sup> <u>    </u>		

Remarks:

SOIL

Sampling Point: MP-05312016-5-IN

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-9			7.5YR 7/2	10	D	M		
0-9			G1 2.5/N	5	C	M		
0-9	7.5YR 4/2	80	7.5YR 5/8	5	C	M	Silt Loam	

<sup>1</sup>Type: C= Concentration, D= Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators for Problematic Hydric Soils <sup>3</sup> :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) ( <b>LRR C</b> )
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) ( <b>LRR B</b> )
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) ( <b>LRR C</b> )	<input checked="" type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) ( <b>LRR D</b> )	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

<b>Restrictive Layer (if present):</b> Type: <u>Calcic</u> Depth (inches): <u>9</u>	<b>Hydric Soil Present?</b> Yes <u>X</u> No <u>      </u>
---	---

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:					
Primary Indicators (minimum of one required; check all that apply)			Secondary Indicators (2 or more required)		
<input type="checkbox"/> Surface Water (A1)	<input checked="" type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) ( <b>Riverine</b> )			
<input type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) ( <b>Riverine</b> )			
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) ( <b>Riverine</b> )			
<input checked="" type="checkbox"/> Water Marks (B1) ( <b>Nonriverine</b> )	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)			
<input type="checkbox"/> Sediment Deposits (B2) ( <b>Nonriverine</b> )	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)			
<input checked="" type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)			
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)			
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input checked="" type="checkbox"/> FAC-Neutral Test (D5)			
<b>Field Observations:</b> Surface Water Present?    Yes <u>      </u> No <u>      </u> Depth (inches): <u>                    </u> Water Table Present?    Yes <u>      </u> No <u>      </u> Depth (inches): <u>                    </u> Saturation Present?    Yes <u>X</u> No <u>      </u> Depth (inches): <u>                    </u> 4.0 (includes capillary fringe)			<b>Wetland Hydrology Present?</b> Yes <u>X</u> No <u>      </u>		

Describe Recorded Date (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**Sampling Site: MP-05312016-5-IN**



**Photo Name:** Photo\_170531190131.jpg

**Direction:**

**Caption:**



**Photo Name:** Photo\_170531190140.jpg

**Direction:**

**Caption:**



# WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: WDC Wetland Update City/County: Davis Sampling Date: 6/1/2017  
 Applicant/Owner: UDOT State: UT Sampling Point: MP-06012017-1-IN  
 Investigators: M. Perkins Section, Township, Range: 08 4N 2W  
 Landform (hillslope, terrace, etc.): Valley Local Relief (concave, convex, none): Concave Slope(%): 5  
 Subregion (LRR): D - Western Range and Lat: 41.096111 Long: -112.085068 Datum: WGS84  
 Soil Map Unit Name: Ford loam, shallow water table, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation: \_\_\_\_\_ Soil \_\_\_\_\_ or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation: \_\_\_\_\_ Soil \_\_\_\_\_ or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <u>X</u>	No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____
Hydric Soil Present?	Yes <u>X</u>	No _____	
Wetland Hydrology Present?	Yes <u>X</u>	No _____	

Remarks:  
 Emergent marsh wetland.

## VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test Worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.00000</u> (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
			= Total Cover	
<u>Sapling/Shrub Stratum</u> (Plot size: )				<b>Prevalence Index worksheet:</b> <u>Total % Cover of:</u> _____ <u>Multiply by:</u> _____ OBL species _____ x1= _____ FACW species <u>105</u> x2= <u>210</u> FAC species <u>10</u> x3= <u>30</u> FACU species _____ x4= <u>0</u> UPL species _____ x5= <u>0</u> Column Totals: <u>115</u> (A) <u>240</u> (B)  <i>Prevalence Index = B/A=</i> <u>2.09</u>
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
			= Total Cover	
<u>Herb Stratum</u> (Plot size: 5)				<b>Hydrophytic Vegetation Indicators:</b> X Dominance Test is >50% X Prevalence Index is ≤3.0 <sup>1</sup> _____ Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. <b>Hydrophytic Vegetation Present?</b> Yes <u>X</u> No _____
1. <u>Phragmites australis</u>	<u>90</u>	<u>Yes</u>	<u>FACW</u>	
2. <u>Juncus balticus</u>	<u>15</u>	<u>No</u>	<u>FACW</u>	
3. <u>Distichlis spicata</u>	<u>10</u>	<u>No</u>	<u>FAC</u>	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
			= Total Cover	
<u>Woody Vine Stratum</u> (Plot size: )				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
			= Total Cover	
% Bare Ground in Herb Stratum <u>15</u>	% Cover of Biotic Crust <sup>0</sup> _____			

Remarks:

SOIL

Sampling Point: MP-06012017-1-IN

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-3	10YR 4/2	90	10YR 4/8	10	C	M	Sandy Loam	
3-8	10YR 4/1	60	G1 2.5/N	15	C	M		Mn concentration
3-8	10YR 4/2	25					Sandy Loam	
8-8	ROCK							Rock

<sup>1</sup>Type: C= Concentration, D= Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input checked="" type="checkbox"/> Depleted Matrix (F3)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	

Indicators for Problematic Hydric Soils<sup>3</sup>:

<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

<b>Restrictive Layer (if present):</b> Type: _____ Depth (inches): _____	<b>Hydric Soil Present?</b> Yes <input checked="" type="checkbox"/> No    _____
--	---

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:				Secondary Indicators (2 or more required)	
Primary Indicators (minimum of one required; check all that apply)					
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) (Riverine)			
<input checked="" type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)			
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)			
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)			
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)			
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)			
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)			
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input checked="" type="checkbox"/> FAC-Neutral Test (D5)			
<b>Field Observations:</b> Surface Water Present?    Yes <input type="checkbox"/> No <input type="checkbox"/> Depth (inches): _____ Water Table Present?    Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): _____ 6.0 Saturation Present?    Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): _____ 0.0 (includes capillary fringe)				<b>Wetland Hydrology Present?</b> Yes <input checked="" type="checkbox"/> No    _____	

Describe Recorded Date (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**Sampling Site: MP-06012017-1-IN**



**Photo Name:** Photo\_170601082146.jpg

**Direction:**

**Caption:**



**Photo Name:** Photo\_170601082205.jpg

**Direction:**

**Caption:**



# WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: WDC Wetland Update City/County: Davis Sampling Date: 5/31/2017  
 Applicant/Owner: UDOT State: UT Sampling Point: MP-05312016-4-IN  
 Investigators: M. Perkins Section, Township, Range: 16 4N 2W  
 Landform (hillslope, terrace, etc.): Valley Local Relief (concave, convex, none): Concave Slope(%): 3  
 Subregion (LRR): D - Western Range and Lat: 41.086021 Long: -112.078720 Datum: WGS84  
 Soil Map Unit Name: Ford loam, shallow water table, 0 to 1 percent slopes NWI Classification: PEM1C

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No        (If No, explain in Remarks)  
 Are Vegetation:        Soil        or Hydrology        significantly disturbed? Are "Normal Circumstances" present? Yes X No         
 Are Vegetation:        Soil        or Hydrology        naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <u>X</u>	No <u>      </u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No <u>      </u>
Hydric Soil Present?	Yes <u>X</u>	No <u>      </u>	
Wetland Hydrology Present?	Yes <u>X</u>	No <u>      </u>	

Remarks:  
 Wet meadow adjacent to emergent marsh.

## VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test Worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.00000</u> (A/B)
1. <u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>	
2. <u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>	
3. <u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>	
4. <u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>	
			= Total Cover	
<u>Sapling/Shrub Stratum</u> (Plot size: )				<b>Prevalence Index worksheet:</b> <u>Total % Cover of:</u> <u>      </u> <u>Multiply by:</u> <u>      </u> OBL species <u>      </u> x1= <u>      </u> FACW species <u>5</u> x2= <u>10</u> FAC species <u>100</u> x3= <u>300</u> FACU species <u>      </u> x4= <u>0</u> UPL species <u>      </u> x5= <u>0</u> Column Totals: <u>105</u> (A) <u>310</u> (B)  <i>Prevalence Index = B/A=</i> <u>2.95</u>
1. <u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>	
2. <u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>	
3. <u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>	
4. <u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>	
5. <u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>	
			= Total Cover	
<u>Herb Stratum</u> (Plot size: 5)				<b>Hydrophytic Vegetation Indicators:</b> X Dominance Test is >50% X Prevalence Index is ≤3.0 <sup>1</sup> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. <b>Hydrophytic Vegetation Present?</b> Yes <u>X</u> No <u>      </u>
1. <u>Distichlis spicata</u>	<u>95</u>	<u>Yes</u>	<u>FAC</u>	
2. <u>Dipsacus fullonum</u>	<u>5</u>	<u>No</u>	<u>FAC</u>	
3. <u>Phragmites australis</u>	<u>5</u>	<u>No</u>	<u>FACW</u>	
4. <u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>	
5. <u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>	
6. <u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>	
7. <u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>	
8. <u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>	
			<u>105</u> = Total Cover	
<u>Woody Vine Stratum</u> (Plot size: )				
1. <u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>	
2. <u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>	
			= Total Cover	
% Bare Ground in Herb Stratum <u>0</u>	% Cover of Biotic Crust <sup>0</sup> <u>      </u>			

Remarks:

SOIL

Sampling Point: MP-05312016-4-IN

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-3	10YR 4/3	100					Organic	
3-20			7.5YR 6/2	7	D	M		
3-20	7.5YR 4/2	90	7.5YR 5/8	3	C	M	Silt Loam	

<sup>1</sup>Type: C= Concentration, D= Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators for Problematic Hydric Soils <sup>3</sup> :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) ( <b>LRR C</b> )
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) ( <b>LRR B</b> )
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) ( <b>LRR C</b> )	<input checked="" type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) ( <b>LRR D</b> )	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

<b>Restrictive Layer (if present):</b> Type: _____ Depth (inches): _____	<b>Hydric Soil Present?</b> Yes <input checked="" type="checkbox"/> No    _____
--	---

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:					
Primary Indicators (minimum of one required; check all that apply)			Secondary Indicators (2 or more required)		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) ( <b>Riverine</b> )			
<input type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) ( <b>Riverine</b> )			
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) ( <b>Riverine</b> )			
<input type="checkbox"/> Water Marks (B1) ( <b>Nonriverine</b> )	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)			
<input type="checkbox"/> Sediment Deposits (B2) ( <b>Nonriverine</b> )	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)			
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)			
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)			
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input checked="" type="checkbox"/> FAC-Neutral Test (D5)			
<b>Field Observations:</b> Surface Water Present?    Yes <input type="checkbox"/> No <input type="checkbox"/> Depth (inches): _____ Water Table Present?    Yes <input type="checkbox"/> No <input type="checkbox"/> Depth (inches): _____ Saturation Present?    Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): _____ 10.0 (includes capillary fringe)			<b>Wetland Hydrology Present?</b> Yes <input checked="" type="checkbox"/> No    _____		

Describe Recorded Date (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**Sampling Site:** MP-05312016-4-IN



**Photo Name:** Photo\_170531175838.jpg

**Direction:**

**Caption:**



**Photo Name:** Photo\_170531175850.jpg

**Direction:**

**Caption:**



# WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: WDC Wetland Update City/County: Davis Sampling Date: 5/23/2017  
 Applicant/Owner: UDOT State: UT Sampling Point: MP-05232017-3-IN  
 Investigators: M. Perkins Section, Township, Range: 36 3N 1W  
 Landform (hillslope, terrace, etc.): Valley Local Relief (concave, convex, none): Concave Slope(%): 1  
 Subregion (LRR): D - Western Range and Lat: 40.956512 Long: -111.893951 Datum: WGS84  
 Soil Map Unit Name: Cudahy silt loam, 0 to 1 percent slopes NWI Classification: PEM1C

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No      (If No, explain in Remarks)  
 Are Vegetation:      Soil      or Hydrology      significantly disturbed? Are "Normal Circumstances" present? Yes X No       
 Are Vegetation:      Soil      or Hydrology      naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <u>X</u>	No <u>    </u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No <u>    </u>
Hydric Soil Present?	Yes <u>X</u>	No <u>    </u>	
Wetland Hydrology Present?	Yes <u>X</u>	No <u>    </u>	

Remarks:  
 Sampling point is a wetland. Saline wet meadow.

## VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test Worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.00000</u> (A/B)
1. <u>    </u>	<u>    </u>	<u>    </u>	<u>    </u>	
2. <u>    </u>	<u>    </u>	<u>    </u>	<u>    </u>	
3. <u>    </u>	<u>    </u>	<u>    </u>	<u>    </u>	
4. <u>    </u>	<u>    </u>	<u>    </u>	<u>    </u>	
			= Total Cover	
<u>Sapling/Shrub Stratum</u> (Plot size: )				<b>Prevalence Index worksheet:</b> <u>Total % Cover of:</u> <u>    </u> <u>Multiply by:</u> <u>    </u> OBL species <u>45</u> x1= <u>45</u> FACW species <u>20</u> x2= <u>40</u> FAC species <u>30</u> x3= <u>90</u> FACU species <u>    </u> x4= <u>0</u> UPL species <u>    </u> x5= <u>0</u> Column Totals: <u>95</u> (A) <u>175</u> (B)  <i>Prevalence Index = B/A=</i> <u>1.84</u>
1. <u>    </u>	<u>    </u>	<u>    </u>	<u>    </u>	
2. <u>    </u>	<u>    </u>	<u>    </u>	<u>    </u>	
3. <u>    </u>	<u>    </u>	<u>    </u>	<u>    </u>	
4. <u>    </u>	<u>    </u>	<u>    </u>	<u>    </u>	
5. <u>    </u>	<u>    </u>	<u>    </u>	<u>    </u>	
			= Total Cover	
<u>Herb Stratum</u> (Plot size: 5)				<b>Hydrophytic Vegetation Indicators:</b> X Dominance Test is >50% X Prevalence Index is ≤3.0 <sup>1</sup> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. <b>Hydrophytic Vegetation Present?</b> Yes <u>X</u> No <u>    </u>
1. <u>Cordylanthus maritimus</u>	<u>35</u>	<u>Yes</u>	<u>OBL</u>	
2. <u>Distichlis spicata</u>	<u>30</u>	<u>Yes</u>	<u>FAC</u>	
3. <u>Puccinellia nuttalliana</u>	<u>20</u>	<u>Yes</u>	<u>FACW</u>	
4. <u>Salicornia rubra</u>	<u>10</u>	<u>No</u>	<u>OBL</u>	
5. <u>    </u>	<u>    </u>	<u>    </u>	<u>    </u>	
6. <u>    </u>	<u>    </u>	<u>    </u>	<u>    </u>	
7. <u>    </u>	<u>    </u>	<u>    </u>	<u>    </u>	
8. <u>    </u>	<u>    </u>	<u>    </u>	<u>    </u>	
			= Total Cover	
<u>Woody Vine Stratum</u> (Plot size: )				
1. <u>    </u>	<u>    </u>	<u>    </u>	<u>    </u>	
2. <u>    </u>	<u>    </u>	<u>    </u>	<u>    </u>	
			= Total Cover	
% Bare Ground in Herb Stratum <u>10</u>		% Cover of Biotic Crust <sup>0</sup> <u>    </u>		

Remarks:  
 Saline wetland community.

SOIL

Sampling Point: MP-05232017-3-IN

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-2	2.5Y 4/2	100					Silt Loam	
2-10	2.5Y 4/2	97	7.5YR 5/8	3	C	M	Silty Clay	
10-20	10YR 6/2	100					Clay Loam	

<sup>1</sup>Type: C= Concentration, D= Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

Indicators for Problematic Hydric Soils<sup>3</sup>:

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) ( <b>LRR C</b> )
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) ( <b>LRR B</b> )
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) ( <b>LRR C</b> )	<input checked="" type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) ( <b>LRR D</b> )	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes ☒ No ☐

Remarks:  
Depleted matrix.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

Secondary Indicators (2 or more required)

<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) ( <b>Riverine</b> )
<input type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) ( <b>Riverine</b> )
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) ( <b>Riverine</b> )
<input type="checkbox"/> Water Marks (B1) ( <b>Nonriverine</b> )	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) ( <b>Nonriverine</b> )	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input checked="" type="checkbox"/> FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ☐ No ☐ Depth (inches):

Water Table Present? Yes ☐ No ☐ Depth (inches):

Saturation Present? Yes ☒ No ☐ Depth (inches):  0.0

(includes capillary fringe)

Wetland Hydrology Present? Yes ☒ No ☐

Describe Recorded Date (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:  
Hydrology indicated by shallow saturation.

**Sampling Site: MP-05232017-3-IN**



**Photo Name:** Photo\_170523143233.jpg

**Direction:**

**Caption:**



**Photo Name:** Photo\_170523143244.jpg

**Direction:**

**Caption:**



# WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: WDC Wetland Update City/County: Davis Sampling Date: 5/18/2017  
 Applicant/Owner: UDOT State: UT Sampling Point: MP-05182017-2-IN  
 Investigators: M. Perkins Section, Township, Range: 31 3N 1E  
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): Concave Slope(%): 1  
 Subregion (LRR): D - Western Range and Lat: 40.954376 Long: -111.890244 Datum: WGS84  
 Soil Map Unit Name: Ironton silt loam, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation: \_\_\_\_\_ Soil \_\_\_\_\_ or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation: \_\_\_\_\_ Soil \_\_\_\_\_ or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <u>X</u>	No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____
Hydric Soil Present?	Yes <u>X</u>	No _____	
Wetland Hydrology Present?	Yes <u>X</u>	No _____	

Remarks:  
 This point extends wetland through most of this field (excluding upland fill) since the area between appears to be wetter.

## VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test Worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.00000</u> (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
			= Total Cover	
<u>Sapling/Shrub Stratum</u> (Plot size: )				<b>Prevalence Index worksheet:</b> <u>Total % Cover of:</u> _____ <u>Multiply by:</u> _____ OBL species _____ x1= _____ FACW species <u>35</u> x2= <u>70</u> FAC species <u>60</u> x3= <u>180</u> FACU species <u>20</u> x4= <u>80</u> UPL species _____ x5= <u>0</u> Column Totals: <u>115</u> (A) <u>330</u> (B)  <i>Prevalence Index = B/A=</i> <u>2.87</u>
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
			= Total Cover	
<u>Herb Stratum</u> (Plot size: 10)				<b>Hydrophytic Vegetation Indicators:</b> X Dominance Test is >50% X Prevalence Index is ≤3.0 <sup>1</sup> _____ Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. <b>Hydrophytic Vegetation Present?</b> Yes <u>X</u> No _____
1. <u>Distichlis spicata</u>	<u>60</u>	<u>Yes</u>	<u>FAC</u>	
2. <u>Festuca pratensis</u>	<u>20</u>	<u>No</u>	<u>FACU</u>	
3. <u>Juncus balticus</u>	<u>20</u>	<u>No</u>	<u>FACW</u>	
4. <u>Carex praegracilis</u>	<u>15</u>	<u>No</u>	<u>FACW</u>	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
			<u>115</u> = Total Cover	
<u>Woody Vine Stratum</u> (Plot size: )				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
			= Total Cover	
% Bare Ground in Herb Stratum <u>0</u>	% Cover of Biotic Crust <sup>0</sup> _____			

Remarks:  
 Horses in this field.

SOIL

Sampling Point: MP-05182017-2-IN

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-2	10YR 3/2	100					Organic	
2-6	10YR 2/1	100					Silty Clay	
6-12	10YR 2/1	90	7.5 YR 4/6	10	C	PL	Clay Loam	
12-20	10YR 4/1	90	10YR 6/1	10	D	M	Clay Loam	

<sup>1</sup>Type: C= Concentration, D= Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	

Indicators for Problematic Hydric Soils<sup>3</sup>:

<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

<b>Restrictive Layer (if present):</b> Type: _____ Depth (inches): _____	<b>Hydric Soil Present?</b> Yes <u>X</u> No    _____
--	--

Remarks:  
Meets F6.

HYDROLOGY

Wetland Hydrology Indicators:				Secondary Indicators (2 or more required)	
Primary Indicators (minimum of one required; check all that apply)					
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) (Riverine)			
<input type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)			
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)			
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)			
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input checked="" type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)			
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)			
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)			
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input checked="" type="checkbox"/> FAC-Neutral Test (D5)			
<b>Field Observations:</b> Surface Water Present?    Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present?    Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): _____ 16.0 Saturation Present?    Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): _____ 0.0 (includes capillary fringe)				<b>Wetland Hydrology Present?</b> Yes <u>X</u> No    _____	

Describe Recorded Date (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:  
Field may be flood irrigated.

**Sampling Site: MP-05182017-2-IN**



**Photo Name:** Photo\_170518142047.jpg

**Direction:**

**Caption:**



**Photo Name:** Photo\_170518142036.jpg

**Direction:**

**Caption:**



# WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: WDC Wetland Update City/County: Davis Sampling Date: 5/31/2017  
 Applicant/Owner: UDOT State: UT Sampling Point: MP-05312016-3-OUT  
 Investigators: MP Section, Township, Range: 16 4N 2W  
 Landform (hillslope, terrace, etc.): Valley Local Relief (concave, convex, none): None Slope(%):           
 Subregion (LRR): D - Western Range and Lat: 41.079033 Long: -112.071571 Datum: WGS84  
 Soil Map Unit Name: Ford loam, shallow water table, 0 to 1 percent slopes NWI Classification: PEM1C

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No          (If No, explain in Remarks)  
 Are Vegetation:          Soil          or Hydrology          significantly disturbed? Are "Normal Circumstances" present? Yes X No           
 Are Vegetation:          Soil          or Hydrology          naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <u>        </u>	No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b>	Yes <u>        </u>	No <u>X</u>
Hydric Soil Present?	Yes <u>        </u>	No <u>X</u>			
Wetland Hydrology Present?	Yes <u>        </u>	No <u>X</u>			

Remarks:  
 Irrigated pasture with cattle is not a wetland because vegetation is not hydrophytic. No soil pit. Wheatgrass dominant in field to north.

## VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test Worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>        </u> 1 (A) Total Number of Dominant Species Across All Strata: <u>        </u> 2 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50.000000</u> (A/B)
1. <u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	
2. <u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	
3. <u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	
4. <u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	
		= Total Cover		
<u>Sapling/Shrub Stratum</u> (Plot size: )				<b>Prevalence Index worksheet:</b> <u>Total % Cover of:</u> <u>        </u> <u>Multiply by:</u> <u>        </u> OBL species <u>        </u> x1= <u>        </u> FACW species <u>        </u> x2= <u>        </u> 0 FAC species <u>25</u> x3= <u>75</u> FACU species <u>75</u> x4= <u>300</u> UPL species <u>        </u> x5= <u>        </u> 0 Column Totals: <u>100</u> (A) <u>375</u> (B)  <i>Prevalence Index = B/A=</i> <u>3.75</u>
1. <u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	
2. <u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	
3. <u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	
4. <u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	
5. <u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	
		= Total Cover		
<u>Herb Stratum</u> (Plot size: 5)				<b>Hydrophytic Vegetation Indicators:</b> <u>        </u> Dominance Test is >50% <u>        </u> Prevalence Index is ≤3.0 <sup>1</sup> <u>        </u> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <u>        </u> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
1. <u>Festuca pratensis</u>	<u>70</u>	<u>Yes</u>	<u>FACU</u>	
2. <u>Trifolium fragiferum</u>	<u>20</u>	<u>Yes</u>	<u>FAC</u>	
3. <u>Poa palustris</u>	<u>5</u>	<u>No</u>	<u>FAC</u>	
4. <u>Taraxacum officinale</u>	<u>5</u>	<u>No</u>	<u>FACU</u>	
5. <u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	
6. <u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	
7. <u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	
8. <u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	
	<u>100</u>	= Total Cover		
<u>Woody Vine Stratum</u> (Plot size: )				<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. <u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	
2. <u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	
		= Total Cover		
% Bare Ground in Herb Stratum <u>0</u>		% Cover of Biotic Crust <sup>0</sup> <u>        </u>		<b>Hydrophytic Vegetation</b> Yes <u>        </u> No <u>        </u> X <u>        </u> <b>Present?</b>

Remarks:

SOIL

Sampling Point: MP-05312016-3-OUT

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		

<sup>1</sup>Type: C= Concentration, D= Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

Indicators for Problematic Hydric Soils<sup>3</sup>:

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) ( <b>LRR C</b> )
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) ( <b>LRR B</b> )
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) ( <b>LRR C</b> )	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) ( <b>LRR D</b> )	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present?

Yes ☐ No ☐ X ☐

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

Secondary Indicators (2 or more required)

<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) ( <b>Riverine</b> )
<input type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) ( <b>Riverine</b> )
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) ( <b>Riverine</b> )
<input type="checkbox"/> Water Marks (B1) ( <b>Nonriverine</b> )	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) ( <b>Nonriverine</b> )	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ☐ No ☐ Depth (inches):

Water Table Present? Yes ☐ No ☐ Depth (inches):

Saturation Present? Yes ☐ No ☐ Depth (inches):

(includes capillary fringe)

Wetland Hydrology Present?

Yes ☐ No ☐ X ☐

Describe Recorded Date (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**Sampling Site:** MP-05312016-3-OUT



**Photo Name:** Photo\_170531171544.jpg

**Direction:**

**Caption:**



# WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: WDC Wetland Update City/County: Davis Sampling Date: 5/22/2017  
 Applicant/Owner: UDOT State: UT Sampling Point: MP-05222017-1-IN  
 Investigators: M. Perkins Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): None Slope(%): \_\_\_\_\_  
 Subregion (LRR): D - Western Range and Lat: 40.955521 Long: -111.889984 Datum: WGS84  
 Soil Map Unit Name: \_\_\_\_\_ NWI Classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation: \_\_\_\_\_ Soil \_\_\_\_\_ or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation: \_\_\_\_\_ Soil \_\_\_\_\_ or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <u>X</u>	No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____
Hydric Soil Present?	Yes <u>X</u>	No _____	
Wetland Hydrology Present?	Yes <u>X</u>	No _____	

Remarks:  
 Wetland here. Fescue becomes dominant to east.

## VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test Worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.00000</u> (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
			= Total Cover	
<u>Sapling/Shrub Stratum</u> (Plot size: )				<b>Prevalence Index worksheet:</b> <u>Total % Cover of:</u> _____ <u>Multiply by:</u> _____ OBL species _____ x1= _____ FACW species <u>85</u> x2= <u>170</u> FAC species <u>40</u> x3= <u>120</u> FACU species <u>10</u> x4= <u>40</u> UPL species _____ x5= <u>0</u> Column Totals: <u>135</u> (A) <u>330</u> (B)  <i>Prevalence Index = B/A=</i> <u>2.44</u>
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
			= Total Cover	
<u>Herb Stratum</u> (Plot size: 10)				<b>Hydrophytic Vegetation Indicators:</b> X Dominance Test is >50% X Prevalence Index is ≤3.0 <sup>1</sup> _____ Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. <b>Hydrophytic Vegetation Present?</b> Yes <u>X</u> No _____
1. <u>Juncus balticus</u>	<u>50</u>	<u>Yes</u>	<u>FACW</u>	
2. <u>Distichlis spicata</u>	<u>40</u>	<u>Yes</u>	<u>FAC</u>	
3. <u>Carex praegracilis</u>	<u>35</u>	<u>Yes</u>	<u>FACW</u>	
4. <u>Festuca pratensis</u>	<u>10</u>	<u>No</u>	<u>FACU</u>	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
			<u>135</u> = Total Cover	
<u>Woody Vine Stratum</u> (Plot size: )				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
			= Total Cover	
% Bare Ground in Herb Stratum <u>0</u>		% Cover of Biotic Crust <u>0</u>		

Remarks:  
 Composition appears "wetter" from here towards berm to west.

SOIL

Sampling Point: MP-05222017-1-IN

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-14	10YR 2/1	100					Silt Loam	
14-20	10YR 4/2	97	2.5Y 5/3	3	C	M	Silty Clay	

<sup>1</sup>Type: C= Concentration, D= Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators for Problematic Hydric Soils <sup>3</sup> :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) ( <b>LRR C</b> )
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) ( <b>LRR B</b> )
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) ( <b>LRR C</b> )	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) ( <b>LRR D</b> )	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input checked="" type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

<b>Restrictive Layer (if present):</b> Type: _____ Depth (inches): _____	<b>Hydric Soil Present?</b> Yes <input checked="" type="checkbox"/> No    _____
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Remarks:  
Fits F7.

HYDROLOGY

Wetland Hydrology Indicators:					
Primary Indicators (minimum of one required; check all that apply)			Secondary Indicators (2 or more required)		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) ( <b>Riverine</b> )			
<input type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) ( <b>Riverine</b> )			
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) ( <b>Riverine</b> )			
<input type="checkbox"/> Water Marks (B1) ( <b>Nonriverine</b> )	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)			
<input type="checkbox"/> Sediment Deposits (B2) ( <b>Nonriverine</b> )	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)			
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)			
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)			
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input checked="" type="checkbox"/> FAC-Neutral Test (D5)			
<b>Field Observations:</b> Surface Water Present?    Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present?    Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present?    Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): _____ 8.0 (includes capillary fringe)			<b>Wetland Hydrology Present?</b> Yes <input checked="" type="checkbox"/> No    _____		

Describe Recorded Date (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**Sampling Site:** MP-05222017-1-IN



**Photo Name:** Photo\_170522154231.jpg

**Direction:**

**Caption:**



**Photo Name:** Photo\_170522154245.jpg

**Direction:**

**Caption:**



# WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: WDC Wetland Update City/County: Davis Sampling Date: 5/23/2017  
 Applicant/Owner: UDOT State: UT Sampling Point: MP-05232017-2-OUT  
 Investigators: M. Perkins Section, Township, Range: 36 3N 1W  
 Landform (hillslope, terrace, etc.): Valley Local Relief (concave, convex, none): Convex Slope(%): 1  
 Subregion (LRR): D - Western Range and Lat: 40.954773 Long: -111.893761 Datum: WGS84  
 Soil Map Unit Name: Airport silt loam, 0 to 2 percent slopes NWI Classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation: \_\_\_\_\_ Soil \_\_\_\_\_ or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation: \_\_\_\_\_ Soil \_\_\_\_\_ or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <u>X</u>	No _____	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u>
Hydric Soil Present?	Yes _____	No <u>X</u>	
Wetland Hydrology Present?	Yes _____	No <u>X</u>	

Remarks:  
 Appears slightly higher than delineated wetland to west and north. Mixed vegetation passes but soils and hydrology do not.

## VEGETATION – Use scientific names of plants.

Tree Stratum	(Plot size: )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test Worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.00000</u> (A/B)
1.	_____	_____	_____	_____	
2.	_____	_____	_____	_____	
3.	_____	_____	_____	_____	
4.	_____	_____	_____	_____	
				= Total Cover	
<b>Sapling/Shrub Stratum</b> (Plot size: )					<b>Prevalence Index worksheet:</b> <u>Total % Cover of:</u> <u>_____</u> <u>Multiply by:</u> <u>_____</u> OBL species <u>_____</u> x1= <u>_____</u> FACW species <u>75</u> x2= <u>150</u> FAC species <u>_____</u> x3= <u>0</u> FACU species <u>_____</u> x4= <u>0</u> UPL species <u>15</u> x5= <u>75</u> Column Totals: <u>90</u> (A) <u>225</u> (B)  <i>Prevalence Index = B/A=</i> <u>2.50</u>
1.	_____	_____	_____	_____	
2.	_____	_____	_____	_____	
3.	_____	_____	_____	_____	
4.	_____	_____	_____	_____	
				= Total Cover	
<b>Herb Stratum</b> (Plot size: 10)					<b>Hydrophytic Vegetation Indicators:</b> X Dominance Test is >50% X Prevalence Index is ≤3.0 <sup>1</sup> _____ Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
1.	<u>Carex praegracilis</u>	<u>45</u>	<u>Yes</u>	<u>FACW</u>	
2.	<u>Juncus balticus</u>	<u>30</u>	<u>Yes</u>	<u>FACW</u>	
3.	<u>Cardaria draba</u>	<u>15</u>	<u>No</u>	<u>UPL</u>	
4.	_____	_____	_____	_____	
5.	_____	_____	_____	_____	
6.	_____	_____	_____	_____	
7.	_____	_____	_____	_____	
8.	_____	_____	_____	_____	
				<u>90</u>	= Total Cover
<b>Woody Vine Stratum</b> (Plot size: )					<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.  <b>Hydrophytic Vegetation Present?</b> Yes <u>X</u> No _____
1.	_____	_____	_____	_____	
2.	_____	_____	_____	_____	
				= Total Cover	
% Bare Ground in Herb Stratum	<u>5</u>	% Cover of Biotic Crust	<u>0</u>		

Remarks:  
 Mixed vegetation is hydrophytic.

SOIL

Sampling Point: MP-05232017-2-OUT

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-8	10YR 2/1	100					Clay Loam	
8-10	10YR 4/2	100					Clay Loam	
10-20	10YR 5/2	100					Clay Loam	

<sup>1</sup>Type: C= Concentration, D= Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

Indicators for Problematic Hydric Soils<sup>3</sup>:

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) ( <b>LRR C</b> )
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) ( <b>LRR B</b> )
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) ( <b>LRR C</b> )	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) ( <b>LRR D</b> )	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present?

Yes ☐ No ☐ X ☐

Remarks:

Soil profile does not fit any indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (2 or more required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) ( <b>Riverine</b> )
<input type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) ( <b>Riverine</b> )
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) ( <b>Riverine</b> )
<input type="checkbox"/> Water Marks (B1) ( <b>Nonriverine</b> )	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) ( <b>Nonriverine</b> )	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input checked="" type="checkbox"/> FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ☐ No ☒ X ☐ Depth (inches):

Water Table Present? Yes ☐ No ☒ X ☐ Depth (inches):

Saturation Present? Yes ☒ X ☐ No ☐ Depth (inches):  15.0

(includes capillary fringe)

Wetland Hydrology Present?

Yes ☐ No ☐ X ☒

Describe Recorded Date (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Soils moist but not saturated above 15 inches.

**Sampling Site:** MP-05232017-2-OUT



**Photo Name:** Photo\_170523140528.jpg

**Direction:**

**Caption:**



**Photo Name:** Photo\_170523140608.jpg

**Direction:**

**Caption:**



# WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: WDC Wetland Update City/County: Davis Sampling Date: 5/31/2017  
 Applicant/Owner: UDOT State: UT Sampling Point: MP-05312016-1-OUT-5  
 Investigators: M. Perkins Section, Township, Range: 21 4N 2W  
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): None Slope(%):           
 Subregion (LRR): D - Western Range and Lat: 41.072750 Long: -112.066162 Datum: WGS84  
 Soil Map Unit Name: Ford loam, 0 to 1 percent slopes NWI Classification: PEM1C

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No          (If No, explain in Remarks)  
 Are Vegetation:          Soil          or Hydrology          significantly disturbed? Are "Normal Circumstances" present? Yes X No           
 Are Vegetation:          Soil          or Hydrology          naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <u>        </u>	No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b>  Yes <u>        </u> No <u>X</u>
Hydric Soil Present?	Yes <u>        </u>	No <u>X</u>	
Wetland Hydrology Present?	Yes <u>        </u>	No <u>X</u>	

Remarks:  
 No defined channel here. Upland vegetation so no soil pit.

## VEGETATION – Use scientific names of plants.

Tree Stratum	(Plot size: )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test Worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>        </u> 0 (A) Total Number of Dominant Species Across All Strata: <u>        </u> 2 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>        </u> 0.0000000 (A/B)
1.	<u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	
2.	<u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	
3.	<u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	
4.	<u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	<u>        </u> = Total Cover
<b>Sapling/Shrub Stratum</b> (Plot size: )					<b>Prevalence Index worksheet:</b> <u>Total % Cover of:</u> <u>        </u> <u>Multiply by:</u> <u>        </u> OBL species <u>        </u> x1= <u>        </u> FACW species <u>        </u> x2= <u>        </u> 0 FAC species <u>        </u> 10 x3= <u>        </u> 30 FACU species <u>        </u> 65 x4= <u>        </u> 260 UPL species <u>        </u> 25 x5= <u>        </u> 125 Column Totals: <u>        </u> 100 (A) <u>        </u> 415 (B)  <i>Prevalence Index = B/A=</i> <u>        </u> 4.15
1.	<u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	
2.	<u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	
3.	<u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	
4.	<u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	<u>        </u> = Total Cover
5.	<u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	
<b>Herb Stratum</b> (Plot size: 10)					<b>Hydrophytic Vegetation Indicators:</b> Dominance Test is >50% Prevalence Index is ≤3.0 <sup>1</sup> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
1.	<u>Festuca pratensis</u>	<u>        </u> 65	<u>        </u> Yes	<u>        </u> FACU	
2.	<u>Bromus racemosus</u>	<u>        </u> 25	<u>        </u> Yes	<u>        </u> UPL	
3.	<u>Poa pratensis</u>	<u>        </u> 10	<u>        </u> No	<u>        </u> FAC	
4.	<u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	
5.	<u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	
6.	<u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	
7.	<u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	
8.	<u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	
		<u>        </u> 100	<u>        </u> = Total Cover		
<b>Woody Vine Stratum</b> (Plot size: )					<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.  <b>Hydrophytic Vegetation Present?</b> Yes <u>        </u> No <u>X</u>
1.	<u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	
2.	<u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	
		<u>        </u> = Total Cover			
% Bare Ground in Herb Stratum <u>        </u> 10		% Cover of Biotic Crust <sup>0</sup> <u>        </u>			

Remarks:

SOIL

Sampling Point: MP-05312016-1-OUT-5

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		

<sup>1</sup>Type: C= Concentration, D= Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

Indicators for Problematic Hydric Soils<sup>3</sup>:

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) ( <b>LRR C</b> )
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) ( <b>LRR B</b> )
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) ( <b>LRR C</b> )	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) ( <b>LRR D</b> )	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present?

Yes ☐ No ☐ X ☐

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

Secondary Indicators (2 or more required)

<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) ( <b>Riverine</b> )
<input type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) ( <b>Riverine</b> )
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) ( <b>Riverine</b> )
<input type="checkbox"/> Water Marks (B1) ( <b>Nonriverine</b> )	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) ( <b>Nonriverine</b> )	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ☐ No ☐ Depth (inches):

Water Table Present? Yes ☐ No ☐ Depth (inches):

Saturation Present? Yes ☐ No ☐ Depth (inches):

(includes capillary fringe)

Wetland Hydrology Present?

Yes ☐ No ☐ X ☐

Describe Recorded Date (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**Sampling Site:** MP-05312016-1-OUT-5



**Photo Name:** Photo\_170531143358.jpg

**Direction:**

**Caption:**



# WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: WDC Wetland Update City/County: \_\_\_\_\_ Sampling Date: 5/12/2017  
 Applicant/Owner: UDOT State: \_\_\_\_\_ Sampling Point: MP-05122017-1-IN-2  
 Investigators: MP Section, Township, Range: 22 4N 2W  
 Landform (hillslope, terrace, etc.): Valley Local Relief (concave, convex, none): Concave Slope(%): 1  
 Subregion (LRR): D - Western Range and Lat: 41.068600 Long: -112.060326 Datum: WGS84  
 Soil Map Unit Name: Ford loam, shallow water table, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation: \_\_\_\_\_ Soil \_\_\_\_\_ or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation: \_\_\_\_\_ Soil \_\_\_\_\_ or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <u>X</u>	No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____
Hydric Soil Present?	Yes <u>X</u>	No _____	
Wetland Hydrology Present?	Yes <u>X</u>	No _____	

Remarks: \_\_\_\_\_

## VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test Worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.00000</u> (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
		= Total Cover		
<u>Sapling/Shrub Stratum</u> (Plot size: )				<b>Prevalence Index worksheet:</b> <u>Total % Cover of:</u> _____ <u>Multiply by:</u> _____ OBL species _____ x1= _____ FACW species <u>70</u> x2= <u>140</u> FAC species <u>25</u> x3= <u>75</u> FACU species _____ x4= <u>0</u> UPL species _____ x5= <u>0</u> Column Totals: <u>95</u> (A) <u>215</u> (B)  <i>Prevalence Index = B/A=</i> <u>2.26</u>
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
		= Total Cover		
<u>Herb Stratum</u> (Plot size: 5)				<b>Hydrophytic Vegetation Indicators:</b> X Dominance Test is >50% X Prevalence Index is ≤3.0 <sup>1</sup> _____ Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
1. <u>Juncus balticus</u>	<u>40</u>	<u>Yes</u>	<u>FACW</u>	
2. <u>Carex praegracilis</u>	<u>30</u>	<u>Yes</u>	<u>FACW</u>	
3. <u>Hordeum jubatum</u>	<u>15</u>	<u>No</u>	<u>FAC</u>	
4. <u>Lepidium latifolium</u>	<u>10</u>	<u>No</u>	<u>FAC</u>	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
	<u>95</u>	= Total Cover		
<u>Woody Vine Stratum</u> (Plot size: )				<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
		= Total Cover		
% Bare Ground in Herb Stratum <u>10</u>		% Cover of Biotic Crust <sup>0</sup> _____		<b>Hydrophytic Vegetation</b> Yes <u>X</u> No _____ <b>Present?</b>

Remarks: \_\_\_\_\_

SOIL

Sampling Point: MP-05122017-1-IN-2

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-4	10YR 4/2	100					Silty Clay	
4-14	10YR 4/2	90	10YR 6/4	10	C	M	Clay Loam	
	ROCK							

<sup>1</sup>Type: C= Concentration, D= Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

Indicators for Problematic Hydric Soils<sup>3</sup>:

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) ( <b>LRR C</b> )
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) ( <b>LRR B</b> )
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) ( <b>LRR C</b> )	<input checked="" type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) ( <b>LRR D</b> )	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes ☒ No ☐

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

Secondary Indicators (2 or more required)

<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) ( <b>Riverine</b> )
<input type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) ( <b>Riverine</b> )
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) ( <b>Riverine</b> )
<input type="checkbox"/> Water Marks (B1) ( <b>Nonriverine</b> )	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) ( <b>Nonriverine</b> )	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input checked="" type="checkbox"/> FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches):

Water Table Present? Yes ☐ No ☒ Depth (inches):

Saturation Present? Yes ☒ No ☐ Depth (inches):  4.0

(includes capillary fringe)

Wetland Hydrology Present? Yes ☒ No ☐

Describe Recorded Date (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: WDC Wetland Update City/County: Davis Sampling Date: 6/1/2017  
 Applicant/Owner: UDOT State: UT Sampling Point: AC06012017-2-in  
 Investigators: A. Croft Section, Township, Range: 26 4N 2W  
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): Concave Slope(%): 2  
 Subregion (LRR): \_\_\_\_\_ Lat: 41.056034 Long: -112.032921 Datum: WGS84  
 Soil Map Unit Name: Ford loam, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation: \_\_\_\_\_ Soil \_\_\_\_\_ or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation: \_\_\_\_\_ Soil \_\_\_\_\_ or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks:

## VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test Worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: _____ (A) Total Number of Dominant Species Across All Strata: _____ (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
		= Total Cover		
<u>Sapling/Shrub Stratum</u> (Plot size: )				<b>Prevalence Index worksheet:</b> <u>Total % Cover of:</u> _____ <u>Multiply by:</u> _____ OBL species _____ x1= _____ FACW species _____ x2= _____ 0 FAC species _____ x3= _____ 0 FACU species _____ x4= _____ 0 UPL species _____ x5= _____ 0 Column Totals: _____ 0 (A) _____ 0 (B)  <i>Prevalence Index = B/A=</i> _____ NaN
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
		= Total Cover		
<u>Herb Stratum</u> (Plot size: )				<b>Hydrophytic Vegetation Indicators:</b> Dominance Test is >50% <u>X</u> Prevalence Index is ≤3.0 <sup>1</sup> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
		= Total Cover		
<u>Woody Vine Stratum</u> (Plot size: )				<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
		= Total Cover		
% Bare Ground in Herb Stratum _____	% Cover of Biotic Crust _____			<b>Hydrophytic Vegetation Present?</b> Yes <u>X</u> No _____

Remarks:



SOIL

Sampling Point: AC06012017-2-in

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		

<sup>1</sup>Type: C= Concentration, D= Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

Indicators for Problematic Hydric Soils<sup>3</sup>:

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) ( <b>LRR C</b> )
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) ( <b>LRR B</b> )
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) ( <b>LRR C</b> )	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) ( <b>LRR D</b> )	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present?

Yes

X

No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

Secondary Indicators (2 or more required)

<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) ( <b>Riverine</b> )
<input type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) ( <b>Riverine</b> )
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) ( <b>Riverine</b> )
<input type="checkbox"/> Water Marks (B1) ( <b>Nonriverine</b> )	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) ( <b>Nonriverine</b> )	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ☐ No ☐ Depth (inches):

Water Table Present? Yes ☐ No ☐ Depth (inches):

Saturation Present? Yes ☐ No ☐ Depth (inches):

(includes capillary fringe)

Wetland Hydrology Present?

Yes

X

No

Describe Recorded Date (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**Sampling Site:** AC06012017-2-in



**Photo Name:** Photo\_170601162549.jpg

**Direction:**

**Caption:**

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: WDC Wetland Update City/County: Davis Sampling Date: 6/1/2017  
 Applicant/Owner: UDOT State: UT Sampling Point: MP-06012017-3-OUT-3  
 Investigators: M. Perkins Section, Township, Range: 05 4N 2W  
 Landform (hillslope, terrace, etc.): Toeslope Local Relief (concave, convex, none): Convex Slope(%): 1  
 Subregion (LRR): D - Western Range and Lat: 41.110573 Long: -112.100616 Datum: WGS84  
 Soil Map Unit Name: Ford loam, shallow water table, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation: \_\_\_\_\_ Soil \_\_\_\_\_ or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation: \_\_\_\_\_ Soil \_\_\_\_\_ or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u>
Hydric Soil Present?	Yes _____	No _____	
Wetland Hydrology Present?	Yes _____	No _____	

Remarks:  
 Upland vegetation so no soil pit.

## VEGETATION – Use scientific names of plants.

Tree Stratum	(Plot size: )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test Worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: _____ 0 (A) Total Number of Dominant Species Across All Strata: _____ 1 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ 0.0000000 (A/B)
1.	_____	_____	_____	_____	
2.	_____	_____	_____	_____	
3.	_____	_____	_____	_____	
4.	_____	_____	_____	_____	<b>Prevalence Index worksheet:</b> <b>Total % Cover of:</b> _____ <b>Multiply by:</b> _____ OBL species _____ x1= _____ FACW species _____ 5 x2= _____ 10 FAC species _____ 15 x3= _____ 45 FACU species _____ x4= _____ 0 UPL species _____ 85 x5= _____ 425 Column Totals: _____ 105 (A) _____ 480 (B)  <i>Prevalence Index = B/A=</i> _____ 4.57
= Total Cover					
_____					
_____					
<b>Sapling/Shrub Stratum</b> (Plot size: )					
1.	_____	_____	_____	_____	
2.	_____	_____	_____	_____	
3.	_____	_____	_____	_____	
4.	_____	_____	_____	_____	
5.	_____	_____	_____	_____	
= Total Cover					
_____					
<b>Herb Stratum</b> (Plot size: 5)					
1.	Thinopyrum intermedium	85	Yes	UPL	
2.	Distichlis spicata	15	No	FAC	
3.	Phalaris arundinacea	5	No	FACW	
4.	_____	_____	_____	_____	
5.	_____	_____	_____	_____	
6.	_____	_____	_____	_____	
7.	_____	_____	_____	_____	
8.	_____	_____	_____	_____	
= Total Cover					
105					
_____					
<b>Woody Vine Stratum</b> (Plot size: )					
1.	_____	_____	_____	_____	
2.	_____	_____	_____	_____	
= Total Cover					
% Bare Ground in Herb Stratum <u>10</u> % Cover of Biotic Crust <sup>0</sup> _____					

Remarks:

**Hydrophytic Vegetation Indicators:**  
 Dominance Test is >50%  
 Prevalence Index is ≤3.0<sup>1</sup>  
 Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)  
 Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)  
<sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.  
**Hydrophytic Vegetation Present?** Yes \_\_\_\_\_ No \_\_\_\_\_ X \_\_\_\_\_



SOIL

Sampling Point: MP-06012017-3-OUT-3

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		

<sup>1</sup>Type: C= Concentration, D= Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

Indicators for Problematic Hydric Soils<sup>3</sup>:

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) ( <b>LRR C</b> )
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) ( <b>LRR B</b> )
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) ( <b>LRR C</b> )	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) ( <b>LRR D</b> )	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present?

Yes ☐ No ☐

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

Secondary Indicators (2 or more required)

<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) ( <b>Riverine</b> )
<input type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) ( <b>Riverine</b> )
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) ( <b>Riverine</b> )
<input type="checkbox"/> Water Marks (B1) ( <b>Nonriverine</b> )	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) ( <b>Nonriverine</b> )	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ☐ No ☐ Depth (inches):

Water Table Present? Yes ☐ No ☐ Depth (inches):

Saturation Present? Yes ☐ No ☐ Depth (inches):

(includes capillary fringe)

Wetland Hydrology Present? Yes ☐ No ☐

Describe Recorded Date (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**Sampling Site:** MP-06012017-3-OUT-3



**Photo Name:** Photo\_170601125846.jpg

**Direction:**

**Caption:**

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: WDC Wetland Update City/County: \_\_\_\_\_ Sampling Date: 5/18/2017  
 Applicant/Owner: UDOT State: \_\_\_\_\_ Sampling Point: MP-05182017-1-OUT  
 Investigators: M. Perkins Section, Township, Range: 25 3N 1W  
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): Concave Slope(%): 1  
 Subregion (LRR): D - Western Range and Lat: 40.948673 Long: -111.890350 Datum: WGS84  
 Soil Map Unit Name: Draper loam, drained, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation: \_\_\_\_\_ Soil \_\_\_\_\_ or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation: \_\_\_\_\_ Soil \_\_\_\_\_ or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <u>X</u>	No _____	Is the Sampled Area within a Wetland?	Yes _____ No <u>X</u>
Hydric Soil Present?	Yes _____	No <u>X</u>		
Wetland Hydrology Present?	Yes <u>X</u>	No _____		

Remarks:  
 Point neared location visited with USACE on 5/11/17. USACE agreed this mesic pasture is not a wetland because soils do not indicate hydric conditions and the vegetation community is not halophytic so soils are not considered problematic from high pH.

## VEGETATION – Use scientific names of plants.

Tree Stratum	(Plot size: )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet:
1.	_____	_____	_____	_____	Number of Dominant Species
2.	_____	_____	_____	_____	That Are OBL, FACW, or FAC: <u>2</u> (A)
3.	_____	_____	_____	_____	Total Number of Dominant
4.	_____	_____	_____	_____	Species Across All Strata: <u>4</u> (B)
			= Total Cover		Percent of Dominant Species
					That Are OBL, FACW, or FAC: <u>50.000000</u> (A/B)
Sapling/Shrub Stratum (Plot size: 15)					Prevalence Index worksheet:
1.	Rosa woodsii	5	Yes	FACU	Total % Cover of: _____ Multiply by: _____
2.	_____	_____	_____	_____	OBL species <u>25</u> x1= <u>25</u>
3.	_____	_____	_____	_____	FACW species <u>10</u> x2= <u>20</u>
4.	_____	_____	_____	_____	FAC species <u>35</u> x3= <u>105</u>
5.	_____	_____	_____	_____	FACU species <u>45</u> x4= <u>180</u>
		5	= Total Cover		UPL species _____ x5= <u>0</u>
Herb Stratum (Plot size: 15)					Column Totals: <u>115</u> (A) <u>330</u> (B)
1.	Festuca pratensis	40	Yes	FACU	Prevalence Index = B/A= <u>2.87</u>
2.	Distichlis spicata	25	Yes	FAC	Hydrophytic Vegetation Indicators:
3.	Eleocharis palustris	25	Yes	OBL	Dominance Test is >50%
4.	Dipsacus fullonum	10	No	FAC	<u>X</u> Prevalence Index is ≤3.0 <sup>1</sup>
5.	Carex praegracilis	10	No	FACW	Morphological Adaptations <sup>1</sup> (Provide supporting
6.	_____	_____	_____	_____	data in Remarks or on a separate sheet)
7.	_____	_____	_____	_____	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
8.	_____	_____	_____	_____	
		110	= Total Cover		
Woody Vine Stratum (Plot size: )					<sup>1</sup> Indicators of hydric soil and wetland hydrology
1.	_____	_____	_____	_____	must be present, unless disturbed or problematic.
2.	_____	_____	_____	_____	
			= Total Cover		
% Bare Ground in Herb Stratum <u>0</u> % Cover of Biotic Crust <sup>0</sup> _____					Hydrophytic
					Vegetation
					Yes <u>X</u> No _____
					Present?

Remarks:  
 Mesic pasture with mixed vegetation. Later in the season, meadow fescue might appear to predominate.



SOIL

Sampling Point: MP-05182017-1-OUT

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-2	10YR 3/2	100					Organic	Peat
2-4	10YR 2/1	100					Clay Loam	
4-9	10YR 3/1	100					Clay Loam	
9-15	10YR 4/1	100					Clay Loam	
15-23	10YR 5/1	100					Silty Clay	

<sup>1</sup>Type: C= Concentration, D= Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

Indicators for Problematic Hydric Soils<sup>3</sup>:

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) ( <b>LRR C</b> )
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) ( <b>LRR B</b> )
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) ( <b>LRR C</b> )	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) ( <b>LRR D</b> )	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present?

Yes ☐

No ☐

X ☒

Remarks:

Soil profile does not meet any indicators, including A12.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (2 or more required)	
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) ( <b>Riverine</b> )	
<input type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) ( <b>Riverine</b> )	
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) ( <b>Riverine</b> )	
<input type="checkbox"/> Water Marks (B1) ( <b>Nonriverine</b> )	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)	
<input type="checkbox"/> Sediment Deposits (B2) ( <b>Nonriverine</b> )	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)	
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)	
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)	
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input checked="" type="checkbox"/> FAC-Neutral Test (D5)	

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches):

Water Table Present? Yes ☒ No ☐ Depth (inches):  18.0

Saturation Present? Yes ☒ No ☐ Depth (inches):  6.0

(includes capillary fringe)

Wetland Hydrology Present? Yes ☐ X ☒ No ☐

Describe Recorded Date (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Moist at surface but not saturated until 6".

Sampling Site: MP-05182017-1-OUT



Photo Name: Photo\_170518122914.jpg

Direction:

Caption:



Photo Name: Photo\_170518122905.jpg

Direction:

Caption:

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: WDC Wetland Update City/County: Davis Sampling Date: 5/18/2017  
 Applicant/Owner: UDOT State: UT Sampling Point: MP-05182017-1-OUT-2  
 Investigators: M. Perkins Section, Township, Range: 31 3N 1E  
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): Concave Slope(%): 1  
 Subregion (LRR): D - Western Range and Lat: 40.949001 Long: -111.890030 Datum: WGS84  
 Soil Map Unit Name: Ironton silt loam, 1 to 3 percent slopes NWI Classification: PEM1A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No      (If No, explain in Remarks)  
 Are Vegetation:      Soil      or Hydrology      significantly disturbed? Are "Normal Circumstances" present? Yes X No       
 Are Vegetation:      Soil      or Hydrology      naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <u>X</u>	No <u>    </u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>    </u> No <u>X</u>
Hydric Soil Present?	Yes <u>    </u>	No <u>X</u>	
Wetland Hydrology Present?	Yes <u>X</u>	No <u>    </u>	

Remarks:  
 Point in area visited with USACE on 5/11/17 and all agreed sampling point is not a wetland because soils are do not fit any hydric indicators and the vegetation community does not suggest high pH. Field appears slightly higher to NW. Besides the other sampling point in this field with hydrophytic vegetation, most areas are currently really green but are not actually hydrophytic because they are dominated by meadow fescue with lower cover in wetland plants mixed in.

## VEGETATION – Use scientific names of plants.

Tree Stratum	(Plot size: )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet:
1.					Number of Dominant Species
2.					That Are OBL, FACW, or FAC: <u>2</u> (A)
3.					Total Number of Dominant
4.					Species Across All Strata: <u>3</u> (B)
			= Total Cover		Percent of Dominant Species
					That Are OBL, FACW, or FAC: <u>66.660000</u> (A/B)
Sapling/Shrub Stratum (Plot size: )					Prevalence Index worksheet:
1.					Total % Cover of: <u>    </u> Multiply by: <u>    </u>
2.					OBL species <u>    </u> x1= <u>    </u>
3.					FACW species <u>20</u> x2= <u>40</u>
4.					FAC species <u>25</u> x3= <u>75</u>
5.					FACU species <u>30</u> x4= <u>120</u>
			= Total Cover		UPL species <u>    </u> x5= <u>0</u>
					Column Totals: <u>75</u> (A) <u>235</u> (B)
Herb Stratum (Plot size: 5)					Prevalence Index = B/A= <u>3.13</u>
1.	Festuca pratensis	30	Yes	FACU	Hydrophytic Vegetation Indicators:
2.	Hordeum jubatum	25	Yes	FAC	X Dominance Test is >50%
3.	Juncus balticus	20	Yes	FACW	Prevalence Index is ≤3.0 <sup>1</sup>
4.					Morphological Adaptations <sup>1</sup> (Provide supporting
5.					data in Remarks or on a separate sheet)
6.					Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
7.					
8.					
		75	= Total Cover		
Woody Vine Stratum (Plot size: )					<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1.					Hydrophytic
2.					Vegetation
			= Total Cover		Yes <u>X</u> No <u>    </u>
% Bare Ground in Herb Stratum	30		% Cover of Biotic Crust <sup>0</sup>		Present?

Remarks:



SOIL

Sampling Point: MP-05182017-1-OUT-2

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-18	10YR 2/1	95	10YR 4/1	5	D	M	Silty Clay	
18-20	10YR 4/1	100					Clay	

<sup>1</sup>Type: C= Concentration, D= Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

Indicators for Problematic Hydric Soils<sup>3</sup>:

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) ( <b>LRR C</b> )
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) ( <b>LRR B</b> )
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) ( <b>LRR C</b> )	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) ( <b>LRR D</b> )	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present?

Yes ☐ No ☐ X ☐

Remarks:

No indicators observed.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

Secondary Indicators (2 or more required)

<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) ( <b>Riverine</b> )
<input type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) ( <b>Riverine</b> )
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) ( <b>Riverine</b> )
<input type="checkbox"/> Water Marks (B1) ( <b>Nonriverine</b> )	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) ( <b>Nonriverine</b> )	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input checked="" type="checkbox"/> FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches):

Water Table Present? Yes ☒ No ☐ Depth (inches):  19.0

Saturation Present? Yes ☒ No ☐ Depth (inches):  4.0

(includes capillary fringe)

Wetland Hydrology Present?

Yes ☒ No ☐

Describe Recorded Date (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

## Sampling Site: MP-05182017-1-OUT-2



Photo Name: Photo\_170518130749.jpg

Direction:

Caption:



Photo Name: Photo\_170518130724.jpg

Direction:

Caption:

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 7/23/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 19 Sampling Point: 26-W-201207231255  
 Investigators: Donovan Gross Nate Nichols Section, Township, Range S 36 T 3 R 1  
 Landform (hillslope, terrace, etc.): Basin Local Relief (concave, convex, none): Concave Slope(%) 2  
 Subregion (LRR): LRR D Lat: 40.9530262379 Long: -111.892321039 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Water NWI Classification: PEMA

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No        (If No, explain in Remarks)  
 Are Vegetation       , Soil       , Hydrology       , significantly disturbed? Are "Normal Circumstances" present? Yes X No         
 Are Vegetation       , Soil       , Hydrology       , naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No <u>      </u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No <u>      </u> <b>Wetland ID:</b> <u>26-W-34</u>
Hydric Soil Present? Yes <u>X</u> No <u>      </u>	
Wetland Hydrology Present? Yes <u>      </u> No <u>X</u>	

Remarks:  
 Sampling point is a wetland based on vegetation and soils. Dry time of year for a seasonal wetland. Wetland data point in an excavated basin, connected to stream/ditch at south.

## VEGETATION— Use scientific names of plants.

<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
<u>Tree Stratum</u>		
<u>Shrub Stratum</u>		
<u>Herb Stratum</u> (Plot size: <u>30 Ft</u> )		
<u>Eleocharis palustris</u>	<u>35</u>	<u>Y</u> <u>OBL</u>
<u>Typha latifolia</u>	<u>35</u>	<u>Y</u> <u>OBL</u>
<u>Phragmites australis</u>	<u>10</u>	<u>N</u> <u>FACW</u>
<u>Schoenoplectus pungens</u>	<u>10</u>	<u>N</u> <u>OBL</u>
<u>Xanthium strumarium</u>	<u>10</u>	<u>N</u> <u>FAC</u>
<u>100</u>	<u>=Total Cover</u>	

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 2 (A)  
 Total Number of Dominant Species Across all Strata: 2 (B)  
 Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>80</u>	x 1 = <u>80</u>
FACW species <u>10</u>	x 2 = <u>20</u>
FAC species <u>10</u>	x 3 = <u>30</u>
FACU species <u>0</u>	x 4 = <u>0</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>100</u> (A)	<u>130</u> (B)
Prevalence Index = B/A= <u>1.30</u>	

### Hydrophytic Vegetation Indicators:

       Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
       Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
       Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No       

% Bare Ground in Herb Stratum 5 % Cover of Biotic Crust       

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation is hydrophytic.



**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)**

Depth (inches)	Matrix			Redox Features				Texture	Remarks
	Color (moist)		%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 3	10YR	5.0 / 4	100		0			LOAM	
3 to 18	10YR	5.0 / 1	70	10yr 4/6	30	C	M	SILTY CLAY LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |  |
|--|--|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)                |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)            |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)        |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)        |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input checked="" type="checkbox"/> Depleted Matrix (F3) |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)         |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7)      |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)          |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)               |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |  |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)  
☐ 2 cm Muck (A10) (LRR B)  
☐ Reduced Vertic (F18)  
☐ Red Parent Material (TF2)  
☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes X No \_\_\_\_\_

Remarks:  
Soil profile meets F3 indicator.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |   |
|--|---|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)   |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                                       |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Fauna (B13)                                      |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                               |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input checked="" type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                            |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)               |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                                   |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                               |

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)  
☐ Sediment Deposits (B2) (Riverine)  
☐ Drift Deposits (B3) (Riverine)  
☐ Drainage Patterns (B10)  
☐ Dry-Season Water Table (C2)  
☐ Crayfish Burrows (C8)  
☐ Saturation Visible on Aerial Imag.(C9)  
☐ Shallow Aquitard (D3)  
☒ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present?	Yes _____ No <u>X</u>	Depth (inches): _____
Water Table Present?	Yes _____ No <u>X</u>	Depth (inches): _____
Saturation Present?	Yes _____ No <u>X</u>	Depth (inches): _____

(includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

Dry area lacks evidence for wetland hydrology, but during dry time of year.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 7/20/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 19 Sampling Point: 26-W-201207201433  
 Investigators: Trent Toler Section, Township, Range S 36 T 3 R 1  
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): None Slope(%) 0  
 Subregion (LRR): LRR D Lat: 40.9563934445 Long: -111.894379789 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Cudahy silt loam, 0 to 1 percent slopes NWI Classification: PEMC  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No        (If No, explain in Remarks)  
 Are Vegetation       , Soil       , Hydrology       , significantly disturbed? Are "Normal Circumstances" present? Yes        No X  
 Are Vegetation       , Soil       , Hydrology X, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No <u>      </u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No <u>      </u> Wetland ID: <u>25-W-24</u>
Hydric Soil Present? Yes <u>X</u> No <u>      </u>	
Wetland Hydrology Present? Yes <u>X</u> No <u>      </u>	

Remarks:  
 Wet meadow area between emergent marsh and upland meadow.

## VEGETATION— Use scientific names of plants.

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
Carex praegracilis	50	Y	FACW
Distichlis spicata	20	Y	FAC
Eleocharis palustris	15	N	OBL
Hordeum jubatum	10	N	FAC
Juncus arcticus	5	N	FACW
Schoenoplectus pungens	5	N	OBL
	105	=Total Cover	

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across all Strata: 2 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>20</u>	x 1 = <u>20</u>
FACW species <u>55</u>	x 2 = <u>110</u>
FAC species <u>30</u>	x 3 = <u>90</u>
FACU species <u>0</u>	x 4 = <u>0</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>105</u> (A)	<u>220</u> (B)

Prevalence Index = B/A = 2.10

### Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
 Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No       

% Bare Ground in Herb Stratum 0 % Cover of Biotic Crust

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation is hydrophytic.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 7	10YR	2.0/ 1	100				SILTY CLAY LOAM	
7 to 11	10YR	3.0/ 2	100				SILTY CLAY LOAM	
11 to 14	10YR	5.0/ 1	100				SILTY CLAY LOAM	
14 to 18	10YR	7.0/ 1	100				SILTY CLAY LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |   |   |
|---|---|
| <input type="checkbox"/> Histosol (A1)                                | <input type="checkbox"/> Sandy Redox (S5)           |
| <input type="checkbox"/> Histic Epipedon (A2)                         | <input type="checkbox"/> Stripped Matrix (S6)       |
| <input type="checkbox"/> Black Histic (A3)                            | <input type="checkbox"/> Loamy Mucky Mineral (F1)   |
| <input type="checkbox"/> Hydrogen Sulfide (A4)                        | <input type="checkbox"/> Loamy Gleyed Matrix (F2)   |
| <input type="checkbox"/> Stratified Layers (A5) LRR C                 | <input type="checkbox"/> Depleted Matrix (F3)       |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D                       | <input type="checkbox"/> Redox Dark Surface (F6)    |
| <input checked="" type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12)                     | <input type="checkbox"/> Redox Depressions (F8)     |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)                     | <input type="checkbox"/> Vernal Pools (F9)          |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)                     |   |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)  
☐ 2 cm Muck (A10) (LRR B)  
☐ Reduced Vertic (F18)  
☐ Red Parent Material (TF2)  
☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes X No \_\_\_\_\_Remarks:  
Clearly passes A11.**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)  
☐ Sediment Deposits (B2) (Riverine)  
☐ Drift Deposits (B3) (Riverine)  
☐ Drainage Patterns (B10)  
☐ Dry-Season Water Table (C2)  
☐ Crayfish Burrows (C8)  
☐ Saturation Visible on Aerial Imag.(C9)  
☐ Shallow Aquitard (D3)  
☒ FAC-Neutral Test (D5)

**Field Observations:**Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Water Table Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Saturation Present? Yes X No \_\_\_\_\_ Depth (inches): 16

(includes capillary fringe)

**Wetland Hydrology Present?** Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

Hydrology indicators are not clear. Surface is saturated nearby to the west. Sampled at dry time of year.



# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 7/18/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 19 Sampling Point: 26-W-201207180919  
 Investigators: Trent Toler Section, Township, Range S 31 T 3 R 1  
 Landform (hillslope, terrace, etc.): Basin Local Relief (concave, convex, none): Concave Slope(%) 0  
 Subregion (LRR): LRR D Lat: 40.9539840395 Long: -111.890396191 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Ironston silt loam, 0 to 1 percent slopes NWI Classification: PEMA  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No        (If No, explain in Remarks)  
 Are Vegetation       , Soil X, Hydrology       , significantly disturbed? Are "Normal Circumstances" present? Yes        No X  
 Are Vegetation       , Soil       , Hydrology       , naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No <u>      </u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No <u>      </u> Wetland ID: <u>26-CW-54</u>
Hydric Soil Present? Yes <u>X</u> No <u>      </u>	
Wetland Hydrology Present? Yes <u>X</u> No <u>      </u>	

Remarks:  
 Constructed detention basin.

## VEGETATION— Use scientific names of plants.

**Absolute % Cover**    **Dominant Species**    **Indicator Status**

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

Typha latifolia	70	Y	OBL
Phragmites australis	30	Y	FACW
Dipsacus fullonum	3	N	FAC
	103	=Total Cover	

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across all Strata: 2 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>70</u>	x 1 = <u>70</u>
FACW species <u>30</u>	x 2 = <u>60</u>
FAC species <u>3</u>	x 3 = <u>9</u>
FACU species <u>0</u>	x 4 = <u>0</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>103</u> (A)	<u>139</u> (B)

Prevalence Index = B/A = 1.35

### Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
 Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No       

% Bare Ground in Herb Stratum 0 % Cover of Biotic Crust

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation is hydrophytic.

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix			Redox Features				Texture	Remarks
	Color (moist)		%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 4	10YR	2.0/ 1	100					LOAM	
4 to 8	10YR	3.0/ 1	70	10YR 5/1	30	D	M	CLAY LOAM	
8 to 18	GLE Y 1	6.0/ 10Y	100					CLAY LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators:**

☐ Histosol (A1)☐ Histic Epipedon (A2)☐ Black Histic (A3)☒ Hydrogen Sulfide (A4)☐ Stratified Layers (A5) LRR C☐ 1 cm Muck (A9) LRR F D☒ Depleted Below Dark Surface (A11)☐ Thick Dark Surface (A12)☐ Sandy Mucky Mineral (S1)☐ Sandy Gleyed Matrix (S4)

☐ Sandy Redox (S5)☐ Stripped Matrix (S6)☐ Loamy Mucky Mineral (F1)☒ Loamy Gleyed Matrix (F2)☐ Depleted Matrix (F3)☐ Redox Dark Surface (F6)☐ Depleted Dark Surface (F7)☐ Redox Depressions (F8)☐ Vernal Pools (F9)

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

☐ 1 cm Muck (A9) (LRR C)☐ 2 cm Muck (A10) (LRR B)☐ Reduced Vertic (F18)☐ Red Parent Material (TF2)☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: Depth (inches):

Hydric Soil Present?

Yes ☒ No ☐

Remarks:

Meets both A4 and A11 indicators.

HYDROLOGY

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

☒ Surface Water (A1)☒ High Water Table (A2)☒ Saturation (A3)☐ Water Marks (B1) (Nonriverine)☐ Sediment Deposits (B2) (Nonriverine)☐ Drift Deposits (B3) (Nonriverine)☐ Surface Soil Cracks (B6)☐ Inundation Visible on Aerial Imagery (B7)☐ Water-Stained Leaves (B9)

☐ Salt Crust (B11)☐ Biotic Crust (B12)☐ Aquatic Fauna (B13)☒ Hydrogen Sulfide Odor (C1)☐ Oxidized Rhizospheres along Living Roots (C3)☐ Presence of Reduced Iron (C4)☐ Recent Iron Reduction in Tilled Soils (C6)☐ Thin Muck Surface (C7)☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

☐ Water Marks (B1) (Riverine)☐ Sediment Deposits (B2) (Riverine)☐ Drift Deposits (B3) (Riverine)☐ Drainage Patterns (B10)☐ Dry-Season Water Table (C2)☐ Crayfish Burrows (C8)☐ Saturation Visible on Aerial Imag.(C9)☐ Shallow Aquitard (D3)☒ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present?

Yes ☒ No ☐

Depth (inches): 

4

Water Table Present?

Yes ☒ No ☐

Depth (inches): 

0

Saturation Present?

Yes ☒ No ☐

Depth (inches): 

0

(includes capillary fringe)

Wetland Hydrology Present?

Yes ☒ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Standing water with some flow to the north.

US Army Corps of Engineers

HDR

Arid West – Version 2.0

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 7/17/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 19 Sampling Point: 26-W-201207171213  
 Investigators: Trent Toler Nate Nichols Section, Township, Range S 31 T 3 R 1  
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): None Slope(%) 0  
 Subregion (LRR): LRR D Lat: 40.9557611764 Long: -111.890116763 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Ironton silt loam, 0 to 1 percent slopes NWI Classification: PEMC

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No        (If No, explain in Remarks)  
 Are Vegetation       , Soil       , Hydrology       , significantly disturbed? Are "Normal Circumstances" present? Yes X No         
 Are Vegetation       , Soil       , Hydrology       , naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No <u>      </u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No <u>      </u> <b>Wetland ID:</b> <u>26-W-18</u>
Hydric Soil Present? Yes <u>X</u> No <u>      </u>	
Wetland Hydrology Present? Yes <u>X</u> No <u>      </u>	

Remarks:  
 Sample point in wet part of horse pasture that transitions to tall emergent marsh.

## VEGETATION— Use scientific names of plants.

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
Juncus arcticus	50	Y	FACW
Carex praegracilis	20	Y	FACW
Puccinellia nuttalliana	20	Y	FACW
Distichlis spicata	5	N	FAC
Hordeum jubatum	5	N	FAC
Trifolium fragiferum	5	N	FACU
	105	=Total Cover	

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 3 (A)  
 Total Number of Dominant Species Across all Strata: 3 (B)  
 Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	<u>0</u>	x 1 =	<u>0</u>
FACW species	<u>90</u>	x 2 =	<u>180</u>
FAC species	<u>10</u>	x 3 =	<u>30</u>
FACU species	<u>5</u>	x 4 =	<u>20</u>
UPL species	<u>0</u>	x 5 =	<u>0</u>
Column Totals:	<u>105</u> (A)		<u>230</u> (B)
Prevalence Index = B/A=		<u>2.19</u>	

### Hydrophytic Vegetation Indicators:

       Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
       Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
       Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No       

% Bare Ground in Herb Stratum 5 % Cover of Biotic Crust       

Remarks: (Include photo numbers here or on a separate sheet.)  
 Vegetation data only for plot within wet meadow area between upland and emergent marsh.



**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 2	2.5Y	3.0 / 2	100				SILT LOAM	
2 to 10	10YR	2.0 / 1	100				SILT LOAM	
10 to 12	10YR	4.0 / 2	100				LOAM	
12 to 19	10YR	7.0 / 1	100				SANDY CLAY LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |   |   |
|---|---|
| <input type="checkbox"/> Histosol (A1)                                | <input type="checkbox"/> Sandy Redox (S5)           |
| <input type="checkbox"/> Histic Epipedon (A2)                         | <input type="checkbox"/> Stripped Matrix (S6)       |
| <input type="checkbox"/> Black Histic (A3)                            | <input type="checkbox"/> Loamy Mucky Mineral (F1)   |
| <input checked="" type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)   |
| <input type="checkbox"/> Stratified Layers (A5) LRR C                 | <input type="checkbox"/> Depleted Matrix (F3)       |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D                       | <input type="checkbox"/> Redox Dark Surface (F6)    |
| <input checked="" type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12)                     | <input type="checkbox"/> Redox Depressions (F8)     |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)                     | <input type="checkbox"/> Vernal Pools (F9)          |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)                     |   |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- |   |
|---|
| <input type="checkbox"/> 1 cm Muck (A9) (LRR C)     |
| <input type="checkbox"/> 2 cm Muck (A10) (LRR B)    |
| <input type="checkbox"/> Reduced Vertic (F18)       |
| <input type="checkbox"/> Red Parent Material (TF2)  |
| <input type="checkbox"/> Other (Explain in Remarks) |

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes X No \_\_\_\_\_

## Remarks:

HS odor and very depleted starting at 12 inches.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input checked="" type="checkbox"/> Saturation (A3)                | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input checked="" type="checkbox"/> Hydrogen Sulfide Odor (C1)         |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- |   |
|---|
| <input type="checkbox"/> Water Marks (B1) (Riverine)            |
| <input type="checkbox"/> Sediment Deposits (B2) (Riverine)      |
| <input type="checkbox"/> Drift Deposits (B3) (Riverine)         |
| <input type="checkbox"/> Drainage Patterns (B10)                |
| <input type="checkbox"/> Dry-Season Water Table (C2)            |
| <input type="checkbox"/> Crayfish Burrows (C8)                  |
| <input type="checkbox"/> Saturation Visible on Aerial Imag.(C9) |
| <input type="checkbox"/> Shallow Aquitard (D3)                  |
| <input checked="" type="checkbox"/> FAC-Neutral Test (D5)       |

**Field Observations:**Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Water Table Present? Yes X No \_\_\_\_\_ Depth (inches): 14Saturation Present? Yes X No \_\_\_\_\_ Depth (inches): 11

(includes capillary fringe)

**Wetland Hydrology Present?** Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

Water table could rise over time.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 7/18/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 17 Sampling Point: 25-N-201207181100  
 Investigators: Trent Toler Section, Township, Range S 36 T 3 R 1  
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): None Slope(%) 0  
 Subregion (LRR): LRR D Lat: 40.9581903259 Long: -111.90152289 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Airport silt loam, 0 to 2 percent slopes NWI Classification: \_\_\_\_\_  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> Wetland ID: _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	
Remarks: Upland salt-cedar grove.	

## VEGETATION - Use scientific names of plants.

### Tree Stratum

### Shrub Stratum (Plot size: 30 Ft )

Tamarix ramosissima

Absolute % Cover	Dominant Species	Indicator Status
50	Y	FACW
50	=Total Cover	

### Herb Stratum (Plot size: 30 Ft )

Distichlis spicata

Thinopyrum intermedium

Atriplex micrantha

Hordeum jubatum

20	Y	FAC
20	Y	UPL
5	N	UPL
5	N	FAC
50	=Total Cover	

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 2 (A)  
 Total Number of Dominant Species Across all Strata: 3 (B)  
 Percent of Dominant Species That are OBL, FACW, or FAC: 66.7% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>50</u>	x 2 = <u>100</u>
FAC species <u>25</u>	x 3 = <u>75</u>
FACU species <u>0</u>	x 4 = <u>0</u>
UPL species <u>25</u>	x 5 = <u>125</u>
Column Totals: <u>100</u> (A)	<u>300</u> (B)

$$Prevalence Index = B/A = \underline{3.00}$$

### Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Vegetation  
☒ Dominance Test > 50%  
☒ Prevalence Index ≤ 3.0 ☐  
 Morphological Adaptations ☐ (Provide supporting data in Remarks or on a separate sheet)  
 Problematic Hydrophytic Vegetation ☐ (Explain)  
☐ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No \_\_\_\_\_

% Bare Ground in Herb Stratum 0 % Cover of Biotic Crust \_\_\_\_\_

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation is hydrophytic.

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix			Redox Features				Texture	Remarks
	Color (moist)		%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 5	10YR	3.0/ 2	100					LOAM	
5 to 12	10YR	2.0/ 2	100					CLAY LOAM	
12 to 16	10YR	2.0/ 2	98	10YR 7/3	2	D	M	CLAY LOAM	
16 to 18	10YR	3.0/ 2	25	10YR 6/2	75	D	M	SANDY CLAY LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) LRR C
- ☐ 1 cm Muck (A9) LRR F D
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

Indicators for Problematic Hydric Soils: <sup>3</sup>

- ☐ 1 cm Muck (A9) (LRR C)
- ☐ 2 cm Muck (A10) (LRR B)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ Restrictive Layer (if observed):

Type: \_\_\_\_\_  
Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes \_\_\_\_\_ No X

Remarks:  
No hydric indicators. Depleted matrix is too deep.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1) (Nonriverine)
- ☐ Sediment Deposits (B2) (Nonriverine)
- ☐ Drift Deposits (B3) (Nonriverine)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)
- ☐ Sediment Deposits (B2) (Riverine)
- ☐ Drift Deposits (B3) (Riverine)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?

Yes \_\_\_\_\_ No X

Depth (inches):

\_\_\_\_\_

Water Table Present?

Yes \_\_\_\_\_ No X

Depth (inches):

\_\_\_\_\_

Saturation Present?

Yes \_\_\_\_\_ No X

Depth (inches):

\_\_\_\_\_

(includes capillary fringe)

Wetland Hydrology Present? Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:  
no hydrology



# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 7/23/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 19 Sampling Point: 25-N-201207231153  
 Investigators: Trent Toler Section, Township, Range S 36 T 3 R 1  
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): None Slope(%) 0  
 Subregion (LRR): LRR D Lat: 40.957836209 Long: -111.894214692 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Draper loam, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>X</u>
Hydric Soil Present?	Yes _____ No <u>X</u>	
Wetland Hydrology Present?	Yes _____ No <u>X</u>	
Wetland ID: _____		

Remarks:  
 Sample Area in upland pasture with small Russian olive grove.

## VEGETATION - Use scientific names of plants.

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
<u>Festuca pratensis</u>	<u>70</u>	<u>Y</u>	<u>FACU</u>
<u>Poa secunda</u>	<u>20</u>	<u>N</u>	<u>FACU</u>
<u>Chenopodium album</u>	<u>10</u>	<u>N</u>	<u>FACU</u>
<u>Juncus arcticus</u>	<u>5</u>	<u>N</u>	<u>FACW</u>
<u>Convolvulus arvensis</u>	<u>3</u>	<u>N</u>	<u>UPL</u>
	<u>108</u>	<u>=Total Cover</u>	

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 0 (A)  
 Total Number of Dominant Species Across all Strata: 1 (B)  
 Percent of Dominant Species That are OBL, FACW, or FAC: 0.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>5</u>	x 2 = <u>10</u>
FAC species <u>0</u>	x 3 = <u>0</u>
FACU species <u>100</u>	x 4 = <u>400</u>
UPL species <u>3</u>	x 5 = <u>15</u>
Column Totals: <u>108</u> (A)	<u>425</u> (B)
Prevalence Index = B/A = <u>3.94</u>	

### Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Vegetation  
 Dominance Test > 50%  
 Prevalence Index ≤ 3.0 ☐  
 Morphological Adaptations ☐ (Provide supporting data in Remarks or on a separate sheet)  
 Problematic Hydrophytic Vegetation ☐ (Explain)  
☐ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes \_\_\_\_\_ No X

% Bare Ground in Herb Stratum 0 % Cover of Biotic Crust

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation is not hydrophytic.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)**

Depth (inches)	Matrix			Redox Features				Texture	Remarks
	Color (moist)		%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 5	10YR	3.0/ 2	100					LOAMY SAND	
5 to 9	10YR	3.0/ 2	100					LOAMY SAND	
9 to 17	10YR	4.0/ 3	100					LOAMY SAND	
17 to 19	10YR	2.0/ 1	97	10YR 5/3	3	D	M	CLAY LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)           |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)       |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)   |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)   |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input type="checkbox"/> Depleted Matrix (F3)       |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)     |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)          |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |   |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- |   |
|---|
| <input type="checkbox"/> 1 cm Muck (A9) (LRR C)     |
| <input type="checkbox"/> 2 cm Muck (A10) (LRR B)    |
| <input type="checkbox"/> Reduced Vertic (F18)       |
| <input type="checkbox"/> Red Parent Material (TF2)  |
| <input type="checkbox"/> Other (Explain in Remarks) |

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No X

## Remarks:

0-5 in is primarily root mat, rest of profile very sandy. Lots of gravels in sand. No hydric indicators.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- |   |
|---|
| <input type="checkbox"/> Water Marks (B1) (Riverine)            |
| <input type="checkbox"/> Sediment Deposits (B2) (Riverine)      |
| <input type="checkbox"/> Drift Deposits (B3) (Riverine)         |
| <input type="checkbox"/> Drainage Patterns (B10)                |
| <input type="checkbox"/> Dry-Season Water Table (C2)            |
| <input type="checkbox"/> Crayfish Burrows (C8)                  |
| <input type="checkbox"/> Saturation Visible on Aerial Imag.(C9) |
| <input type="checkbox"/> Shallow Aquitard (D3)                  |
| <input type="checkbox"/> FAC-Neutral Test (D5)                  |

**Field Observations:**Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Water Table Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Saturation Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_

(includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

No hydrology.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 6/26/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 17 Sampling Point: 25-W-201206260932  
 Investigators: Ron Kass Paul Dawson Section, Township, Range S 25 T 3 R 1  
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): None Slope(%) 0  
 Subregion (LRR): LRR D Lat: 40.9585968852 Long: -111.899183838 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Draper loam, drained, 0 to 1 percent slopes NWI Classification: PEMC  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No        (If No, explain in Remarks)  
 Are Vegetation       , Soil       , Hydrology       , significantly disturbed? Are "Normal Circumstances" present? Yes        No X  
 Are Vegetation       , Soil X, Hydrology       , naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No <u>      </u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No <u>      </u> Wetland ID: <u>25-W-58</u>
Hydric Soil Present? Yes <u>X</u> No <u>      </u>	
Wetland Hydrology Present? Yes <u>X</u> No <u>      </u>	

Remarks:  
 Wetland connected via ditch to south.

## VEGETATION - Use scientific names of plants.

Tree Stratum

Shrub Stratum

Herb Stratum (Plot size: 30 Ft )

	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
<u>Puccinellia nuttalliana</u>	<u>80</u>	<u>Y</u>	<u>FACW</u>
<u>Suaeda calceoliformis</u>	<u>5</u>	<u>N</u>	<u>FACW</u>
<u>Hordeum jubatum</u>	<u>2</u>	<u>N</u>	<u>FAC</u>
<u>Phragmites australis</u>	<u>1</u>	<u>N</u>	<u>FACW</u>
	<u>88</u>	<u>=Total Cover</u>	

Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 1 (A)  
 Total Number of Dominant Species Across all Strata: 1 (B)  
 Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	<u>0</u>	x 1 =	<u>0</u>
FACW species	<u>86</u>	x 2 =	<u>172</u>
FAC species	<u>2</u>	x 3 =	<u>6</u>
FACU species	<u>0</u>	x 4 =	<u>0</u>
UPL species	<u>0</u>	x 5 =	<u>0</u>
Column Totals:	<u>88</u> (A)		<u>178</u> (B)
<i>Prevalence Index = B/A=</i>		<u>2.02</u>	

### Hydrophytic Vegetation Indicators:

       Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0 ☐  
       Morphological Adaptations ☐ (Provide supporting data in Remarks or on a separate sheet)  
       Problematic Hydrophytic Vegetation ☐ (Explain)  
☐ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

% Bare Ground in Herb Stratum 10 % Cover of Biotic Crust       

**Hydrophytic Vegetation Present?** Yes X No       

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation is hydrophytic.



Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)		Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 10	10YR	4.0/ 2	100				SILTY CLAY LOAM	
10 to 18	10YR	4.0/ 2	20	10yr 5/1	80	D	M	SILTY CLAY LOAM

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators:**

☐ Histosol (A1)☐ Histic Epipedon (A2)☐ Black Histic (A3)☐ Hydrogen Sulfide (A4)☐ Stratified Layers (A5) LRR C☐ 1 cm Muck (A9) LRR F D☐ Depleted Below Dark Surface (A11)☐ Thick Dark Surface (A12)☐ Sandy Mucky Mineral (S1)☐ Sandy Gleyed Matrix (S4)☐ Sandy Redox (S5)☐ Stripped Matrix (S6)☐ Loamy Mucky Mineral (F1)☐ Loamy Gleyed Matrix (F2)☒ Depleted Matrix (F3)☐ Redox Dark Surface (F6)☐ Depleted Dark Surface (F7)☐ Redox Depressions (F8)☐ Vernal Pools (F9)

**Indicators for Problematic Hydric Soils:** <sup>3</sup>

☐ 1 cm Muck (A9) (LRR C)☐ 2 cm Muck (A10) (LRR B)☐ Reduced Vertic (F18)☐ Red Parent Material (TF2)☐ Other (Explain in Remarks)

☐ **Restrictive Layer (if observed):**

Type: Depth (inches):

**Hydric Soil Present?** Yes ☒ No ☐

Remarks:

Soil profile meets F3 indicator.

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

HYDROLOGY

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

☐ Surface Water (A1)☐ High Water Table (A2)☐ Saturation (A3)☐ Water Marks (B1) (Nonriverine)☐ Sediment Deposits (B2) (Nonriverine)☐ Drift Deposits (B3) (Nonriverine)☐ Surface Soil Cracks (B6)☐ Inundation Visible on Aerial Imagery (B7)☐ Water-Stained Leaves (B9)☐ Salt Crust (B11)☐ Biotic Crust (B12)☐ Aquatic Fauna (B13)☐ Hydrogen Sulfide Odor (C1)☐ Oxidized Rhizospheres along Living Roots (C3)☐ Presence of Reduced Iron (C4)☐ Recent Iron Reduction in Tilled Soils (C6)☐ Thin Muck Surface (C7)☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

☐ Water Marks (B1) (Riverine)☐ Sediment Deposits (B2) (Riverine)☐ Drift Deposits (B3) (Riverine)☒ Drainage Patterns (B10)☐ Dry-Season Water Table (C2)☐ Crayfish Burrows (C8)☐ Saturation Visible on Aerial Imag.(C9)☐ Shallow Aquitard (D3)☒ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present? Yes ☐ No ☒ Depth (inches): Water Table Present? Yes ☐ No ☒ Depth (inches): Saturation Present? Yes ☐ No ☒ Depth (inches): 

(includes capillary fringe)

**Wetland Hydrology Present?** Yes ☒ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Currently dry. Meets secondary wetland hydrology indicators.

US Army Corps of Engineers

HDR

Arid West – Version 2.0

Project Site:	<u>West Davis Corridor</u>		City/County:	<u>Davis County</u>		Sampling Date:	<u>6/26/2012</u>	
Applicant/Owner:	<u>UDOT</u>		State:	<u>UT</u>		Map/Sheet:	<u>17</u>	
Investigators:	<u>Ron Kass</u>		<u>Paul Dawson</u>		Section, Township, Range	<u>S 36 T 3 R 1</u>		
Landform (hillslope, terrace, etc.):	<u>Flat</u>		Local Relief (concave, convex, none):	<u>None</u>		Slope(%)	<u>1</u>	
Subregion (LRR):	<u>LRR D</u>		Lat:	<u>40.957710708</u>		Long:	<u>-111.90134312</u>	
			Datum:	<u>GCS_WGS_1984</u>				
Soil Map Unit Name:	<u>Airport silt loam, 0 to 2 percent slopes</u>				NWI Classification:	<u>PEMC</u>		
Are climatic / hydrologic conditions on the site typical for this time of year?			Yes	<u>X</u>	No	(If No, explain in Remarks)		
Are Vegetation <u>    </u> , Soil <u>    </u> , Hydrology <u>    </u> , significantly disturbed?			Are "Normal Circumstances" present?			Yes	<u>X</u>	No <u>    </u>
Are Vegetation <u>    </u> , Soil <u>    </u> , Hydrology <u>    </u> , naturally problematic?			(If needed, explain any answers in Remarks.)					

Hydrophytic Vegetation Present?	Yes	<u>X</u>	No	<u>      </u>
Hydric Soil Present?	Yes	<u>X</u>	No	<u>      </u>
Wetland Hydrology Present?	Yes	<u>X</u>	No	<u>      </u>

<b>Is the Sampled Area within a Wetland?</b>	Yes	<u>X</u>	No	<u>      </u>
<b>Wetland ID:</b>	<u>25-W-19</u>			

Remarks:
Wetland point.

<b>Hydrophytic Vegetation Present?</b>	<b>Yes</b>	<b>X</b>	<b>No</b>

Arid West – Version 2.0

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)		Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 8	10YR	4.0/ 2	100				SILTY CLAY LOAM	
8 to 18	10YR	4.0/ 2	20	10yr 5/1	80	D	M	SILTY CLAY LOAM

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators:**

☐ Histosol (A1)☐ Histic Epipedon (A2)☐ Black Histic (A3)☐ Hydrogen Sulfide (A4)☐ Stratified Layers (A5) LRR C☐ 1 cm Muck (A9) LRR F D☐ Depleted Below Dark Surface (A11)☐ Thick Dark Surface (A12)☐ Sandy Mucky Mineral (S1)☐ Sandy Gleyed Matrix (S4)☐ Sandy Redox (S5)☐ Stripped Matrix (S6)☐ Loamy Mucky Mineral (F1)☐ Loamy Gleyed Matrix (F2)☒ Depleted Matrix (F3)☐ Redox Dark Surface (F6)☐ Depleted Dark Surface (F7)☐ Redox Depressions (F8)☐ Vernal Pools (F9)

**Indicators for Problematic Hydric Soils:** <sup>3</sup>

☐ 1 cm Muck (A9) (LRR C)☐ 2 cm Muck (A10) (LRR B)☐ Reduced Vertic (F18)☐ Red Parent Material (TF2)☐ Other (Explain in Remarks)

☐ **Restrictive Layer (if observed):**

Type: Depth (inches):

**Hydric Soil Present?** Yes ☒ No ☐

Remarks:

Meets F3.

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

HYDROLOGY

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

☐ Surface Water (A1)☐ High Water Table (A2)☐ Saturation (A3)☐ Water Marks (B1) (Nonriverine)☐ Sediment Deposits (B2) (Nonriverine)☐ Drift Deposits (B3) (Nonriverine)☒ Surface Soil Cracks (B6)☐ Inundation Visible on Aerial Imagery (B7)☐ Water-Stained Leaves (B9)☒ Salt Crust (B11)☐ Biotic Crust (B12)☐ Aquatic Fauna (B13)☐ Hydrogen Sulfide Odor (C1)☐ Oxidized Rhizospheres along Living Roots (C3)☐ Presence of Reduced Iron (C4)☐ Recent Iron Reduction in Tilled Soils (C6)☐ Thin Muck Surface (C7)☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

☐ Water Marks (B1) (Riverine)☐ Sediment Deposits (B2) (Riverine)☐ Drift Deposits (B3) (Riverine)☒ Drainage Patterns (B10)☐ Dry-Season Water Table (C2)☐ Crayfish Burrows (C8)☐ Saturation Visible on Aerial Imag.(C9)☐ Shallow Aquitard (D3)☒ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present? Yes ☐ No ☒ Depth (inches):

Water Table Present? Yes ☐ No ☒ Depth (inches):

Saturation Present? Yes ☐ No ☒ Depth (inches):

(includes capillary fringe)

**Wetland Hydrology Present?** Yes ☒ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Hydrology indicators B6 and B11 present.

US Army Corps of Engineers

HDR

Arid West – Version 2.0



# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 7/23/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 19 Sampling Point: 25-W-201207231020  
 Investigators: Trent Toler Section, Township, Range S 36 T 3 R 1  
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): None Slope(%) 0  
 Subregion (LRR): LRR D Lat: 40.9578525097 Long: -111.894983621 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Draper loam, 0 to 1 percent slopes NWI Classification: PEMC  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No        (If No, explain in Remarks)  
 Are Vegetation       , Soil       , Hydrology       , significantly disturbed? Are "Normal Circumstances" present? Yes        No X  
 Are Vegetation X, Soil       , Hydrology X, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No <u>      </u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No <u>      </u>  <b>Wetland ID:</b> <u>25-W-25</u>
Hydric Soil Present? Yes <u>X</u> No <u>      </u>	
Wetland Hydrology Present? Yes <u>X</u> No <u>      </u>	

Remarks:  
 Wet meadow area east of emergent marsh

## VEGETATION - Use scientific names of plants.

### Tree Stratum

### Shrub Stratum (Plot size: 30 Ft )

Elaeagnus angustifolia

<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
<u>5</u>	<u>Y</u>	<u>FAC</u>
<u>5</u>	<u>=Total Cover</u>	

### Herb Stratum (Plot size: 30 Ft )

Festuca pratensis

Juncus arcticus

Trifolium fragiferum

Hordeum jubatum

Distichlis spicata

Tamarix ramosissima

Schoenoplectus pungens

<u>25</u>	<u>Y</u>	<u>FACU</u>
<u>25</u>	<u>Y</u>	<u>FACW</u>
<u>25</u>	<u>Y</u>	<u>FACU</u>
<u>20</u>	<u>N</u>	<u>FAC</u>
<u>10</u>	<u>N</u>	<u>FAC</u>
<u>10</u>	<u>N</u>	<u>FACW</u>
<u>3</u>	<u>N</u>	<u>OBL</u>
<u>118</u>	<u>=Total Cover</u>	

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 2 (A)  
 Total Number of Dominant Species Across all Strata: 4 (B)  
 Percent of Dominant Species That are OBL, FACW, or FAC: 50.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>3</u>	x 1 = <u>3</u>
FACW species <u>35</u>	x 2 = <u>70</u>
FAC species <u>35</u>	x 3 = <u>105</u>
FACU species <u>50</u>	x 4 = <u>200</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>123</u> (A)	<u>378</u> (B)

Prevalence Index = B/A = 3.07

### Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Vegetation  
 Dominance Test > 50%  
 Prevalence Index ≤ 3.0 ☐  
 Morphological Adaptations ☐ (Provide supporting data in Remarks or on a separate sheet)  
X Problematic Hydrophytic Vegetation ☐ (Explain)  
☐ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No       

% Bare Ground in Herb Stratum 0 % Cover of Biotic Crust

Remarks: (Include photo numbers here or on a separate sheet.)

Tamarisk and Russian olive on the edges.

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix			Redox Features				Texture	Remarks
	Color (moist)		%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 6	10YR	3.0/ 2	100					CLAY LOAM	
6 to 12	2.5Y	3.0/ 2	95	2.5YR 3/6	7	C	PL	CLAY LOAM	
12 to 15	2.5Y	4.0/ 2	100	5YR 3/4	2	C	PL	LOAMY COARSE SAND	
15 to 18	10YR	3.0/ 1	95	2.5YR 3/6	3	C	PL	SANDY CLAY LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) LRR C
- ☐ 1 cm Muck (A9) LRR F D
- ☒ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☒ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

Indicators for Problematic Hydric Soils: <sup>3</sup>

- ☐ 1 cm Muck (A9) (LRR C)
- ☐ 2 cm Muck (A10) (LRR B)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ Restrictive Layer (if observed):

Type: \_\_\_\_\_  
Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes X No \_\_\_\_\_

Remarks:  
At 11-12 in, band of 10YR 2/1 matrix w/ same redox.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1) (Nonriverine)
- ☐ Sediment Deposits (B2) (Nonriverine)
- ☐ Drift Deposits (B3) (Nonriverine)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☒ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)
- ☐ Sediment Deposits (B2) (Riverine)
- ☐ Drift Deposits (B3) (Riverine)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?

Yes \_\_\_\_\_ No X

Depth (inches):

\_\_\_\_\_

Water Table Present?

Yes \_\_\_\_\_ No X

Depth (inches):

\_\_\_\_\_

Saturation Present?

Yes X No \_\_\_\_\_

Depth (inches):

19

(includes capillary fringe)

Wetland Hydrology Present? Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:  
Water table is likely low due to the season, much wetter within wetland just to west.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 7/23/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 19 Sampling Point: 25-W-201207231233  
 Investigators: Trent Toler Section, Township, Range S 36 T 3 R 1  
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): None Slope(%) 0  
 Subregion (LRR): LRR D Lat: 40.9578724206 Long: -111.894234927 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Draper loam, 0 to 1 percent slopes NWI Classification: PEMF  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No        (If No, explain in Remarks)  
 Are Vegetation       , Soil       , Hydrology       , significantly disturbed? Are "Normal Circumstances" present? Yes        No X  
 Are Vegetation       , Soil       , Hydrology X, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No <u>      </u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No <u>      </u>  <b>Wetland ID:</b> <u>25-W-25</u>
Hydric Soil Present? Yes <u>X</u> No <u>      </u>	
Wetland Hydrology Present? Yes <u>X</u> No <u>      </u>	

Remarks:  
 Pasture area becoming less of a wetland the farther east.

## VEGETATION - Use scientific names of plants.

	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
<u>Tree Stratum</u> (Plot size: <u>30 Ft</u> )			
<u>Elaeagnus angustifolia</u>	<u>10</u>	<u>Y</u>	<u>FAC</u>
	<u>10</u> =Total Cover		
<u>Shrub Stratum</u> (Plot size: <u>30 Ft</u> )			
<u>Tamarix aphylla</u>	<u>30</u>	<u>Y</u>	<u>FAC</u>
	<u>30</u> =Total Cover		
<u>Herb Stratum</u> (Plot size: <u>30 Ft</u> )			
<u>Festuca pratensis</u>	<u>50</u>	<u>Y</u>	<u>FACU</u>
<u>Juncus arcticus</u>	<u>25</u>	<u>Y</u>	<u>FACW</u>
<u>Distichlis spicata</u>	<u>20</u>	<u>N</u>	<u>FAC</u>
<u>Atriplex micrantha</u>	<u>5</u>	<u>N</u>	<u>UPL</u>
<u>Carex praegracilis</u>	<u>5</u>	<u>N</u>	<u>FACW</u>
<u>Hordeum jubatum</u>	<u>5</u>	<u>N</u>	<u>FAC</u>
	<u>110</u> =Total Cover		
<u>Vine Stratum</u>			

## Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 3 (A)  
 Total Number of Dominant Species Across all Strata: 4 (B)  
 Percent of Dominant Species That are OBL, FACW, or FAC: 75.0% (A/B)

## Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>30</u>	x 2 = <u>60</u>
FAC species <u>65</u>	x 3 = <u>195</u>
FACU species <u>50</u>	x 4 = <u>200</u>
UPL species <u>5</u>	x 5 = <u>25</u>
Column Totals: <u>150</u> (A)	<u>480</u> (B)

Prevalence Index = B/A = 3.20

## Hydrophytic Vegetation Indicators:

       Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
       Prevalence Index ≤ 3.0 ☐  
       Morphological Adaptations ☐ (Provide supporting data in Remarks or on a separate sheet)  
       Problematic Hydrophytic Vegetation ☐ (Explain)  
☐ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

## Hydrophytic

Vegetation Present? Yes X No       

% Bare Ground in Herb Stratum 0 % Cover of Biotic Crust

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation hydrophytic by dominance test.



Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 5	10YR	2.0/ 1					SANDY CLAY LOAM	
5 to 13	10YR	4.0/ 2	7.5YR 5/6	10	C	M	LOAMY SAND	
13 to 18	10YR	2.0/ 1	5YR 3/3	25	C	M	CLAY LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators:**

☐ Histosol (A1)☐ Histic Epipedon (A2)☐ Black Histic (A3)☐ Hydrogen Sulfide (A4)☐ Stratified Layers (A5) LRR C☐ 1 cm Muck (A9) LRR F D☒ Depleted Below Dark Surface (A11)☐ Thick Dark Surface (A12)☐ Sandy Mucky Mineral (S1)☐ Sandy Gleyed Matrix (S4)

☒ Sandy Redox (S5)☐ Stripped Matrix (S6)☐ Loamy Mucky Mineral (F1)☐ Loamy Gleyed Matrix (F2)☒ Depleted Matrix (F3)☐ Redox Dark Surface (F6)☐ Depleted Dark Surface (F7)☐ Redox Depressions (F8)☐ Vernal Pools (F9)

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

☐ 1 cm Muck (A9) (LRR C)☐ 2 cm Muck (A10) (LRR B)☐ Reduced Vertic (F18)☐ Red Parent Material (TF2)☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: Depth (inches):

**Hydric Soil Present?** Yes ☒ No ☐

Remarks:

Sandy layer very dry and loose, percentages estimated.

HYDROLOGY

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

☐ Surface Water (A1)☐ High Water Table (A2)☐ Saturation (A3)☐ Water Marks (B1) (Nonriverine)☐ Sediment Deposits (B2) (Nonriverine)☐ Drift Deposits (B3) (Nonriverine)☐ Surface Soil Cracks (B6)☐ Inundation Visible on Aerial Imagery (B7)☐ Water-Stained Leaves (B9)

☐ Salt Crust (B11)☐ Biotic Crust (B12)☐ Aquatic Fauna (B13)☐ Hydrogen Sulfide Odor (C1)☐ Oxidized Rhizospheres along Living Roots (C3)☒ Presence of Reduced Iron (C4)☐ Recent Iron Reduction in Tilled Soils (C6)☐ Thin Muck Surface (C7)☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

☐ Water Marks (B1) (Riverine)☐ Sediment Deposits (B2) (Riverine)☐ Drift Deposits (B3) (Riverine)☐ Drainage Patterns (B10)☐ Dry-Season Water Table (C2)☐ Crayfish Burrows (C8)☐ Saturation Visible on Aerial Imag.(C9)☐ Shallow Aquitard (D3)☐ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present? Yes ☐ No ☒ Depth (inches): 

--

Water Table Present? Yes ☐ No ☒ Depth (inches): 

--

Saturation Present? Yes ☐ No ☒ Depth (inches): 

--

(includes capillary fringe)

**Wetland Hydrology Present?** Yes ☒ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Soil very dry at this time of year.

US Army Corps of Engineers

HDR

Arid West – Version 2.0

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 7/23/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 19 Sampling Point: 25-W-201207231406  
 Investigators: Donovan Gross Nate Nichols Section, Township, Range S 25 T 3 R 1  
 Landform (hillslope, terrace, etc.): Basin Local Relief (concave, convex, none): Concave Slope(%) 5  
 Subregion (LRR): LRR D Lat: 40.9588105973 Long: -111.892303147 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Draper loam, drained, 0 to 1 percent slopes NWI Classification: PEMA  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No        (If No, explain in Remarks)  
 Are Vegetation       , Soil       , Hydrology       , significantly disturbed? Are "Normal Circumstances" present? Yes X No         
 Are Vegetation       , Soil       , Hydrology       , naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No <u>      </u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No <u>      </u> Wetland ID: <u>25-W-38</u>
Hydric Soil Present? Yes <u>X</u> No <u>      </u>	
Wetland Hydrology Present? Yes <u>X</u> No <u>      </u>	

Remarks:  
 Emergent marsh wetland.

## VEGETATION - Use scientific names of plants.

Tree Stratum

Shrub Stratum

Herb Stratum (Plot size: 30 Ft )

	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
Schoenoplectus pungens	60	Y	OBL
Phalaris arundinacea	30	Y	FACW
Salix interior	10	N	FACW
	100 = Total Cover		

Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 2 (A)  
 Total Number of Dominant Species Across all Strata: 2 (B)  
 Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	<u>60</u>	x 1 =	<u>60</u>
FACW species	<u>40</u>	x 2 =	<u>80</u>
FAC species	<u>0</u>	x 3 =	<u>0</u>
FACU species	<u>0</u>	x 4 =	<u>0</u>
UPL species	<u>0</u>	x 5 =	<u>0</u>
Column Totals:	<u>100</u> (A)		<u>140</u> (B)
Prevalence Index = B/A =		<u>1.40</u>	

### Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Vegetation  
☒ Dominance Test > 50%  
☒ Prevalence Index ≤ 3.0 ☐  
 Morphological Adaptations ☐ (Provide supporting data in Remarks or on a separate sheet)  
 Problematic Hydrophytic Vegetation ☐ (Explain)  
☐ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No       

% Bare Ground in Herb Stratum 0 % Cover of Biotic Crust       

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation is hydrophytic.

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix			Redox Features				Texture	Remarks
	Color (moist)	%		Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 18	10YR	2.0/ 1	95	10yr 4/3	5	C	M	SANDY CLAY LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) LRR C
- ☐ 1 cm Muck (A9) LRR F D
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)

☐ Sandy Redox (S5)☐ Stripped Matrix (S6)☐ Loamy Mucky Mineral (F1)☐ Loamy Gleyed Matrix (F2)☐ Depleted Matrix (F3)☒ Redox Dark Surface (F6)☐ Depleted Dark Surface (F7)☐ Redox Depressions (F8)☐ Vernal Pools (F9)

Indicators for Problematic Hydric Soils: <sup>3</sup>

- ☐ 1 cm Muck (A9) (LRR C)
- ☐ 2 cm Muck (A10) (LRR B)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

- ☐ Restrictive Layer (if observed):
- Type: \_\_\_\_\_
- Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes X No \_\_\_\_\_

Remarks:  
Soil passes for indicator F6.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1) (Nonriverine)
- ☐ Sediment Deposits (B2) (Nonriverine)
- ☐ Drift Deposits (B3) (Nonriverine)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☒ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)
- ☐ Sediment Deposits (B2) (Riverine)
- ☐ Drift Deposits (B3) (Riverine)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Shallow Aquitard (D3)
- ☒ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_

Water Table Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_

Saturation Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_

(includes capillary fringe)

Wetland Hydrology Present? Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:  
Hydrology indicator B13 present.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 6/26/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 17 Sampling Point: 25-N-201206261055  
 Investigators: Ron Kass Paul Dawson Section, Township, Range S 36 T 3 R 1  
 Landform (hillslope, terrace, etc.): Top of Slope Local Relief (concave, convex, none): Convex Slope(%) 1  
 Subregion (LRR): LRR D Lat: 40.9577152874 Long: -111.90198013 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Airport silt loam, 0 to 2 percent slopes NWI Classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u>  <b>Wetland ID:</b> _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	

Remarks:  
 Abandoned railway embankment. Upland with no vegetaion.

<b>VEGETATION</b> - Use scientific names of plants.	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>														
<b>Dominance Test Worksheet:</b> Number of Dominant Species That are OBL, FACW, or FAC: <u>0</u> (A)  Total Number of Dominant Species Across all Strata: <u>0</u> (B)  Percent of Dominant Species That are OBL, FACW, or FAC: <u>0.0%</u> (A/B)																	
<b>Prevalence Index Worksheet:</b> <table border="1"> <thead> <tr> <th>Total % Cover of:</th> <th>Multiply by:</th> </tr> </thead> <tbody> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>0</u></td> <td>x 4 = <u>0</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>0</u> (A)</td> <td><u>0</u> (B)</td> </tr> </tbody> </table> Prevalence Index = B/A = _____				Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>0</u>	x 4 = <u>0</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>0</u> (A)	<u>0</u> (B)
Total % Cover of:	Multiply by:																
OBL species <u>0</u>	x 1 = <u>0</u>																
FACW species <u>0</u>	x 2 = <u>0</u>																
FAC species <u>0</u>	x 3 = <u>0</u>																
FACU species <u>0</u>	x 4 = <u>0</u>																
UPL species <u>0</u>	x 5 = <u>0</u>																
Column Totals: <u>0</u> (A)	<u>0</u> (B)																
<b>Hydrophytic Vegetation Indicators:</b> Rapid Test for Hydrophytic Vegetation Dominance Test > 50% Prevalence Index ≤ 3.0 <input type="checkbox"/> Morphological Adaptations <input type="checkbox"/> (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation <input type="checkbox"/> (Explain) <input type="checkbox"/> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																	
<b>Hydrophytic Vegetation Present?</b> Yes _____ No <u>X</u>																	

% Bare Ground in Herb Stratum 100 % Cover of Biotic Crust \_\_\_\_\_

Remarks: (Include photo numbers here or on a separate sheet.)  
 Upland embankment. No vegetation.



Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators:**

☐ Histosol (A1)

☐ Histic Epipedon (A2)

☐ Black Histic (A3)

☐ Hydrogen Sulfide (A4)

☐ Stratified Layers (A5) LRR C

☐ 1 cm Muck (A9) LRR F D

☐ Depleted Below Dark Surface (A11)

☐ Thick Dark Surface (A12)

☐ Sandy Mucky Mineral (S1)

☐ Sandy Gleyed Matrix (S4)

☐ Sandy Redox (S5)

☐ Stripped Matrix (S6)

☐ Loamy Mucky Mineral (F1)

☐ Loamy Gleyed Matrix (F2)

☐ Depleted Matrix (F3)

☐ Redox Dark Surface (F6)

☐ Depleted Dark Surface (F7)

☐ Redox Depressions (F8)

☐ Vernal Pools (F9)

**Indicators for Problematic Hydric Soils:** <sup>3</sup>

☐ 1 cm Muck (A9) (LRR C)

☐ 2 cm Muck (A10) (LRR B)

☐ Reduced Vertic (F18)

☐ Red Parent Material (TF2)

☐ Other (Explain in Remarks)

☐ **Restrictive Layer (if observed):**

Type:

Depth (inches):

**Hydric Soil Present?** Yes  No 

X

Remarks:

Embankment fill material.

HYDROLOGY

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

☐ Surface Water (A1)

☐ High Water Table (A2)

☐ Saturation (A3)

☐ Water Marks (B1) (Nonriverine)

☐ Sediment Deposits (B2) (Nonriverine)

☐ Drift Deposits (B3) (Nonriverine)

☐ Surface Soil Cracks (B6)

☐ Inundation Visible on Aerial Imagery (B7)

☐ Water-Stained Leaves (B9)

☐ Salt Crust (B11)

☐ Biotic Crust (B12)

☐ Aquatic Fauna (B13)

☐ Hydrogen Sulfide Odor (C1)

☐ Oxidized Rhizospheres along Living Roots (C3)

☐ Presence of Reduced Iron (C4)

☐ Recent Iron Reduction in Tilled Soils (C6)

☐ Thin Muck Surface (C7)

☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

☐ Water Marks (B1) (Riverine)

☐ Sediment Deposits (B2) (Riverine)

☐ Drift Deposits (B3) (Riverine)

☐ Drainage Patterns (B10)

☐ Dry-Season Water Table (C2)

☐ Crayfish Burrows (C8)

☐ Saturation Visible on Aerial Imag.(C9)

☐ Shallow Aquitard (D3)

☐ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present? Yes  No 

X

 Depth (inches):

Water Table Present? Yes  No 

X

 Depth (inches):

Saturation Present? Yes  No 

X

 Depth (inches):

(includes capillary fringe)

**Wetland Hydrology Present?** Yes  No 

X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No indicators.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 6/26/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 19 Sampling Point: 26-N-201206261002  
 Investigators: Donovan Gross Section, Township, Range S 31 T 3 R 1  
 Landform (hillslope, terrace, etc.): Basin Local Relief (concave, convex, none): None Slope(%) 1  
 Subregion (LRR): LRR D Lat: 40.954927169 Long: -111.889200241 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Draper loam, drained, 1 to 3 percent slopes NWI Classification: \_\_\_\_\_  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland?	Yes _____ No <u>X</u>
Hydric Soil Present?	Yes _____ No <u>X</u>		
Wetland Hydrology Present?	Yes _____ No <u>X</u>		Wetland ID: _____

Remarks:  
 Upland data point with upland vegetation, therefore no soil pit was dug.

## VEGETATION— Use scientific names of plants.

	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
<u>Tree Stratum</u>			
<u>Shrub Stratum</u>			
<u>Herb Stratum</u> (Plot size: <u>30 Ft</u> )			
Bromus inermis	40	Y	FACU
Thinopyrum intermedium	20	Y	UPL
Poa bulbosa	15	Y	UPL
	75	=Total Cover	
<u>Vine Stratum</u>			

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 0 (A)  
 Total Number of Dominant Species Across all Strata: 3 (B)  
 Percent of Dominant Species That are OBL, FACW, or FAC: 0.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>0</u>	x 2 = <u>0</u>
FAC species <u>0</u>	x 3 = <u>0</u>
FACU species <u>40</u>	x 4 = <u>160</u>
UPL species <u>35</u>	x 5 = <u>175</u>
Column Totals: <u>75</u> (A)	<u>335</u> (B)

Prevalence Index = B/A = 4.47

### Hydrophytic Vegetation Indicators:

\_\_\_\_ Rapid Test for Hydrophytic Vegetation  
 \_\_\_\_ Dominance Test > 50%  
 \_\_\_\_ Prevalence Index ≤ 3.0  
 \_\_\_\_ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 \_\_\_\_ Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes \_\_\_\_\_ No X

% Bare Ground in Herb Stratum 0 % Cover of Biotic Crust

Remarks: (Include photo numbers here or on a separate sheet.)

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)           |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)       |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)   |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)   |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input type="checkbox"/> Depleted Matrix (F3)       |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)     |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)          |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |   |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)
- ☐ 2 cm Muck (A10) (LRR B)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No X

## Remarks:

Upland vegetation. Soil pit not necessary.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)
- ☐ Sediment Deposits (B2) (Riverine)
- ☐ Drift Deposits (B3) (Riverine)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

**Field Observations:**Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Water Table Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Saturation Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_

(includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

No indicators observed.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 7/16/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 19 Sampling Point: 26-N-201207161205  
 Investigators: Trent Toler Section, Township, Range S 31 T 3 R 1  
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): None Slope(%) 5  
 Subregion (LRR): LRR D Lat: 40.9483639086 Long: -111.890524741 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Ironston silt loam, 1 to 3 percent slopes NWI Classification: \_\_\_\_\_  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes \_\_\_\_\_ No X  
 Are Vegetation X, Soil X, Hydrology X, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> <b>Wetland ID:</b> _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	

Remarks:  
 Landscaped lawngrass area on fill - constructed for development, no soil pit dug.

## VEGETATION— Use scientific names of plants.

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
Poa pratensis	90	Y	FAC
Taraxacum officinale	5	N	FACU
Phragmites australis	3	N	FACW
Medicago lupulina	2	N	FAC
	100	=Total Cover	

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 1 (A)  
 Total Number of Dominant Species Across all Strata: 1 (B)  
 Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>3</u>	x 2 = <u>6</u>
FAC species <u>92</u>	x 3 = <u>276</u>
FACU species <u>5</u>	x 4 = <u>20</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>100</u> (A)	<u>302</u> (B)
Prevalence Index = B/A= <u>3.02</u>	

### Hydrophytic Vegetation Indicators:

\_\_\_\_ Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
 \_\_\_\_ Prevalence Index ≤ 3.0  
 \_\_\_\_ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 \_\_\_\_ Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No \_\_\_\_\_

% Bare Ground in Herb Stratum 0 % Cover of Biotic Crust

Remarks: (Include photo numbers here or on a separate sheet.)

Might be a lawngrass mix of a few cultivated grass spp.



**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)           |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)       |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)   |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)   |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input type="checkbox"/> Depleted Matrix (F3)       |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)     |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)          |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |   |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)  
☐ 2 cm Muck (A10) (LRR B)  
☐ Reduced Vertic (F18)  
☐ Red Parent Material (TF2)  
☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No X

## Remarks:

Landscape area; no soil pit dug.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)  
☐ Sediment Deposits (B2) (Riverine)  
☐ Drift Deposits (B3) (Riverine)  
☐ Drainage Patterns (B10)  
☐ Dry-Season Water Table (C2)  
☐ Crayfish Burrows (C8)  
☐ Saturation Visible on Aerial Imag.(C9)  
☐ Shallow Aquitard (D3)  
☐ FAC-Neutral Test (D5)

**Field Observations:**Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Water Table Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Saturation Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_

(includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

Spray irrigated by landscape maintenance.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 7/20/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 19 Sampling Point: 26-N-201207201043  
 Investigators: Trent Toler Section, Township, Range S 36 T 3 R 1  
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): None Slope(%) 0  
 Subregion (LRR): LRR D Lat: 40.9543734679 Long: -111.89360891 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Airport silt loam, 0 to 2 percent slopes NWI Classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology X, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> <b>Wetland ID:</b> _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	

Remarks:  
 Mixed meadow is not a wetland. Vegetation qualifies as hydrophytic, but soils and hydrology fail.

## VEGETATION— Use scientific names of plants.

**Absolute % Cover** **Dominant Species** **Indicator Status**

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

Hordeum jubatum	30	Y	FAC
Distichlis spicata	15	Y	FAC
Festuca pratensis	15	Y	FACU
Puccinellia nuttalliana	15	Y	FACW
Carex praegracilis	10	N	FACW
Juncus arcticus	10	N	FACW
Festuca rubra	5	N	FAC
Thinopyrum ponticum	3	N	UPL
Cichorium intybus	2	N	FACU
	105	=Total Cover	

### Vine Stratum

## Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 3 (A)  
 Total Number of Dominant Species Across all Strata: 4 (B)  
 Percent of Dominant Species That are OBL, FACW, or FAC: 75.0% (A/B)

## Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>35</u>	x 2 = <u>70</u>
FAC species <u>50</u>	x 3 = <u>150</u>
FACU species <u>17</u>	x 4 = <u>68</u>
UPL species <u>3</u>	x 5 = <u>15</u>
Column Totals: <u>105</u> (A)	<u>303</u> (B)

Prevalence Index = B/A = 2.89

## Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
 Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No \_\_\_\_\_

% Bare Ground in Herb Stratum 0 % Cover of Biotic Crust

Remarks: (Include photo numbers here or on a separate sheet.)

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix			Redox Features				Texture	Remarks
	Color (moist)		%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 10	10YR	2.0/ 2	100					SILTY CLAY LOAM	
10 to 15	10YR	5.0/ 2	90	10YR 3/2	10	D	M	SILTY CLAY LOAM	
15 to 18	10YR	5.0/ 2	95	10YR 7/2	5	D	M	SILTY CLAY LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators:**

☐ Histosol (A1)☐ Histic Epipedon (A2)☐ Black Histic (A3)☐ Hydrogen Sulfide (A4)☐ Stratified Layers (A5) LRR C☐ 1 cm Muck (A9) LRR F D☐ Depleted Below Dark Surface (A11)☐ Thick Dark Surface (A12)☐ Sandy Mucky Mineral (S1)☐ Sandy Gleyed Matrix (S4)☐ Sandy Redox (S5)☐ Stripped Matrix (S6)☐ Loamy Mucky Mineral (F1)☐ Loamy Gleyed Matrix (F2)☐ Depleted Matrix (F3)☐ Redox Dark Surface (F6)☐ Depleted Dark Surface (F7)☐ Redox Depressions (F8)☐ Vernal Pools (F9)

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

☐ 1 cm Muck (A9) (LRR C)☐ 2 cm Muck (A10) (LRR B)☐ Reduced Vertic (F18)☐ Red Parent Material (TF2)☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: Depth (inches):

**Hydric Soil Present?** Yes  No 

X

Remarks:

No redox in 10-15 layer; 3/2 is undepleted soil from above, found in cracks.

HYDROLOGY

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

☐ Surface Water (A1)☐ High Water Table (A2)☐ Saturation (A3)☐ Water Marks (B1) (Nonriverine)☐ Sediment Deposits (B2) (Nonriverine)☐ Drift Deposits (B3) (Nonriverine)☐ Surface Soil Cracks (B6)☐ Inundation Visible on Aerial Imagery (B7)☐ Water-Stained Leaves (B9)☐ Salt Crust (B11)☐ Biotic Crust (B12)☐ Aquatic Fauna (B13)☐ Hydrogen Sulfide Odor (C1)☐ Oxidized Rhizospheres along Living Roots (C3)☐ Presence of Reduced Iron (C4)☐ Recent Iron Reduction in Tilled Soils (C6)☐ Thin Muck Surface (C7)☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

☐ Water Marks (B1) (Riverine)☐ Sediment Deposits (B2) (Riverine)☐ Drift Deposits (B3) (Riverine)☐ Drainage Patterns (B10)☐ Dry-Season Water Table (C2)☐ Crayfish Burrows (C8)☐ Saturation Visible on Aerial Imag.(C9)☐ Shallow Aquitard (D3)☐ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present? Yes  No 

X

 Depth (inches): 

--

Water Table Present? Yes  No 

X

 Depth (inches): 

--

Saturation Present? Yes  No 

X

 Depth (inches): 

--

(includes capillary fringe)

**Wetland Hydrology Present?** Yes  No 

X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No hydrology indicators identified. Sampled during dry time of year.

US Army Corps of Engineers

HDR

Arid West – Version 2.0

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 7/20/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 19 Sampling Point: 26-N-201207231012  
 Investigators: Trent Toler Section, Township, Range S 36 T 3 R 1  
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): None Slope(%) 0  
 Subregion (LRR): LRR D Lat: 40.9564092717 Long: -111.894243313 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Cudahy silt loam, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes \_\_\_\_\_ No X  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology X, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> Wetland ID: _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	
Remarks: Upland data point above wetland.	

## VEGETATION— Use scientific names of plants.

<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
50	Y	FAC
20	Y	FACW
10	N	FACW
10	N	FACW
5	N	FAC
5	N	FACW
100	=Total Cover	

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

Distichlis spicata	50	Y	FAC
Puccinellia nuttalliana	20	Y	FACW
Carex praegracilis	10	N	FACW
Spergularia maritima	10	N	FACW
Hordeum jubatum	5	N	FAC
Juncus arcticus	5	N	FACW

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across all Strata: 2 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>45</u>	x 2 = <u>90</u>
FAC species <u>55</u>	x 3 = <u>165</u>
FACU species <u>0</u>	x 4 = <u>0</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>100</u> (A)	<u>255</u> (B)

Prevalence Index = B/A = 2.55

### Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
 Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No \_\_\_\_\_

% Bare Ground in Herb Stratum 0 % Cover of Biotic Crust \_\_\_\_\_

Remarks: (Include photo numbers here or on a separate sheet.)  
 Saline meadow community is hydrophytic, but less vigorous than in wetland to the west.



**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 5	10YR 2.0/ 2	100					SILTY CLAY LOAM	
5 to 10	10YR 3.0/ 2	100					SILTY CLAY LOAM	
10 to 13	10YR 4.0/ 2	100					SILTY CLAY LOAM	
13 to 18	10YR 5.0/ 2	30	10YR 6/1	70	D	M	SILTY CLAY LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)           |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)       |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)   |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)   |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input type="checkbox"/> Depleted Matrix (F3)       |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)     |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)          |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |   |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- |   |
|---|
| <input type="checkbox"/> 1 cm Muck (A9) (LRR C)     |
| <input type="checkbox"/> 2 cm Muck (A10) (LRR B)    |
| <input type="checkbox"/> Reduced Vertic (F18)       |
| <input type="checkbox"/> Red Parent Material (TF2)  |
| <input type="checkbox"/> Other (Explain in Remarks) |

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No X

## Remarks:

Fails to meet any hydric indicators. Depleted matrix starts too deep.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- |   |
|---|
| <input type="checkbox"/> Water Marks (B1) (Riverine)            |
| <input type="checkbox"/> Sediment Deposits (B2) (Riverine)      |
| <input type="checkbox"/> Drift Deposits (B3) (Riverine)         |
| <input type="checkbox"/> Drainage Patterns (B10)                |
| <input type="checkbox"/> Dry-Season Water Table (C2)            |
| <input type="checkbox"/> Crayfish Burrows (C8)                  |
| <input type="checkbox"/> Saturation Visible on Aerial Imag.(C9) |
| <input type="checkbox"/> Shallow Aquitard (D3)                  |
| <input checked="" type="checkbox"/> FAC-Neutral Test (D5)       |

**Field Observations:**Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Water Table Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Saturation Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_

(includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

No primary hydrology indicators.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 7/23/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 19 Sampling Point: 26-N-201207231136  
 Investigators: Donovan Gross Nate Nichols Section, Township, Range S 36 T 3 R 1  
 Landform (hillslope, terrace, etc.): Basin Local Relief (concave, convex, none): Concave Slope(%) 5  
 Subregion (LRR): LRR D Lat: 40.9497815266 Long: -111.89239947 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Airport silt loam, 0 to 2 percent slopes NWI Classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> Wetland ID: _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	

Remarks:  
 Upland point with non-hydrophytic vegetation. No soil pit.

## VEGETATION— Use scientific names of plants.

**Absolute % Cover** **Dominant Species** **Indicator Status**

Tree Stratum

Shrub Stratum

Herb Stratum (Plot size: 30 Ft )

Thinopyrum intermedium	95	Y	UPL
	95	=Total Cover	

Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 0 (A)  
 Total Number of Dominant Species Across all Strata: 1 (B)  
 Percent of Dominant Species That are OBL, FACW, or FAC: 0.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	<u>0</u>	x 1 =	<u>0</u>
FACW species	<u>0</u>	x 2 =	<u>0</u>
FAC species	<u>0</u>	x 3 =	<u>0</u>
FACU species	<u>0</u>	x 4 =	<u>0</u>
UPL species	<u>95</u>	x 5 =	<u>475</u>
Column Totals:	<u>95</u> (A)		<u>475</u> (B)
Prevalence Index = B/A=		<u>5.00</u>	

### Hydrophytic Vegetation Indicators:

☐ Rapid Test for Hydrophytic Vegetation  
☐ Dominance Test > 50%  
☐ Prevalence Index ≤ 3.0  
☐ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
☐ Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes \_\_\_\_\_ No X

% Bare Ground in Herb Stratum \_\_\_\_\_ % Cover of Biotic Crust \_\_\_\_\_

Remarks: (Include photo numbers here or on a separate sheet.)

Upland vegetation.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)           |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)       |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)   |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)   |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input type="checkbox"/> Depleted Matrix (F3)       |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)     |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)          |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |   |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- |   |
|---|
| <input type="checkbox"/> 1 cm Muck (A9) (LRR C)     |
| <input type="checkbox"/> 2 cm Muck (A10) (LRR B)    |
| <input type="checkbox"/> Reduced Vertic (F18)       |
| <input type="checkbox"/> Red Parent Material (TF2)  |
| <input type="checkbox"/> Other (Explain in Remarks) |

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No X

## Remarks:

No soil pit since vegetation clearly fails.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- |   |
|---|
| <input type="checkbox"/> Water Marks (B1) (Riverine)            |
| <input type="checkbox"/> Sediment Deposits (B2) (Riverine)      |
| <input type="checkbox"/> Drift Deposits (B3) (Riverine)         |
| <input type="checkbox"/> Drainage Patterns (B10)                |
| <input type="checkbox"/> Dry-Season Water Table (C2)            |
| <input type="checkbox"/> Crayfish Burrows (C8)                  |
| <input type="checkbox"/> Saturation Visible on Aerial Imag.(C9) |
| <input type="checkbox"/> Shallow Aquitard (D3)                  |
| <input type="checkbox"/> FAC-Neutral Test (D5)                  |

**Field Observations:**Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Water Table Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Saturation Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_

(includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

No hydrology indicators observed.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 7/23/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 19 Sampling Point: 26-N-201207231324  
 Investigators: Donovan Gross Nate Nichols Section, Township, Range S 36 T 3 R 1  
 Landform (hillslope, terrace, etc.): Basin Local Relief (concave, convex, none): Concave Slope(%) 5  
 Subregion (LRR): LRR D Lat: 40.95349845 Long: -111.892260086 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Airport silt loam, 0 to 2 percent slopes NWI Classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> Wetland ID: _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	

Remarks:

## VEGETATION— Use scientific names of plants.

**Absolute % Cover** **Dominant Species** **Indicator Status**

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

Pascopyrum smithii	60	Y	FAC
Carex praegracilis	25	Y	FACW
Epilobium ciliatum	15	N	FACW
	100	=Total Cover	

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across all Strata: 2 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>40</u>	x 2 = <u>80</u>
FAC species <u>60</u>	x 3 = <u>180</u>
FACU species <u>0</u>	x 4 = <u>0</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>100</u> (A)	<u>260</u> (B)

Prevalence Index = B/A= 2.60

### Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
 Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No \_\_\_\_\_

% Bare Ground in Herb Stratum 0 % Cover of Biotic Crust

Remarks: (Include photo numbers here or on a separate sheet.)

All veg but pasco dead or dying



**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 8	10YR	3.0 / 1					SILTY CLAY LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)           |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)       |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)   |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)   |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input type="checkbox"/> Depleted Matrix (F3)       |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)     |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)          |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |   |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- |   |
|---|
| <input type="checkbox"/> 1 cm Muck (A9) (LRR C)     |
| <input type="checkbox"/> 2 cm Muck (A10) (LRR B)    |
| <input type="checkbox"/> Reduced Vertic (F18)       |
| <input type="checkbox"/> Red Parent Material (TF2)  |
| <input type="checkbox"/> Other (Explain in Remarks) |

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): --

**Hydric Soil Present?** Yes \_\_\_\_ No X

## Remarks:

Hard, powdery dry soil. unable to dig past 8 inches.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- |   |
|---|
| <input type="checkbox"/> Water Marks (B1) (Riverine)            |
| <input type="checkbox"/> Sediment Deposits (B2) (Riverine)      |
| <input type="checkbox"/> Drift Deposits (B3) (Riverine)         |
| <input type="checkbox"/> Drainage Patterns (B10)                |
| <input type="checkbox"/> Dry-Season Water Table (C2)            |
| <input type="checkbox"/> Crayfish Burrows (C8)                  |
| <input type="checkbox"/> Saturation Visible on Aerial Imag.(C9) |
| <input type="checkbox"/> Shallow Aquitard (D3)                  |
| <input checked="" type="checkbox"/> FAC-Neutral Test (D5)       |

**Field Observations:**Surface Water Present? Yes \_\_\_\_ No X Depth (inches): --Water Table Present? Yes \_\_\_\_ No X Depth (inches): --Saturation Present? Yes \_\_\_\_ No X Depth (inches): --

(includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 7/23/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 19 Sampling Point: 26-N-201207231340  
 Investigators: Donovan Gross Nate Nichols Section, Township, Range S 36 T 3 R 1  
 Landform (hillslope, terrace, etc.): \_\_\_\_\_ Local Relief (concave, convex, none): \_\_\_\_\_ Slope(%) \_\_\_\_\_  
 Subregion (LRR): LRR D Lat: 40.9548634287 Long: -111.892334512 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Airport silt loam, 0 to 2 percent slopes NWI Classification: \_\_\_\_\_  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes \_\_\_\_\_ No X (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> Wetland ID: _____
Hydric Soil Present?	Yes _____ No <u>X</u>	
Wetland Hydrology Present?	Yes _____ No <u>X</u>	

Remarks:  
 Upland point.

## VEGETATION— Use scientific names of plants.

	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
<u>Tree Stratum</u>			
<u>Shrub Stratum</u>			
<u>Herb Stratum</u> (Plot size: <u>30 Ft</u> )			
<u>Thinopyrum ponticum</u>	<u>95</u>	<u>Y</u>	<u>UPL</u>
	<u>95</u> =Total Cover		
<u>Vine Stratum</u>			

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 0 (A)  
 Total Number of Dominant Species Across all Strata: 1 (B)  
 Percent of Dominant Species That are OBL, FACW, or FAC: 0.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>0</u>	x 2 = <u>0</u>
FAC species <u>0</u>	x 3 = <u>0</u>
FACU species <u>0</u>	x 4 = <u>0</u>
UPL species <u>95</u>	x 5 = <u>475</u>
Column Totals: <u>95</u> (A)	<u>475</u> (B)
Prevalence Index = B/A= <u>5.00</u>	

### Hydrophytic Vegetation Indicators:

☐ Rapid Test for Hydrophytic Vegetation  
☐ Dominance Test > 50%  
☐ Prevalence Index ≤ 3.0  
☐ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
☐ Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

% Bare Ground in Herb Stratum \_\_\_\_\_ % Cover of Biotic Crust \_\_\_\_\_

**Hydrophytic Vegetation Present?** Yes \_\_\_\_\_ No X

Remarks: (Include photo numbers here or on a separate sheet.)  
 Upland vegetation.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)           |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)       |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)   |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)   |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input type="checkbox"/> Depleted Matrix (F3)       |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)     |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)          |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |   |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- |   |
|---|
| <input type="checkbox"/> 1 cm Muck (A9) (LRR C)     |
| <input type="checkbox"/> 2 cm Muck (A10) (LRR B)    |
| <input type="checkbox"/> Reduced Vertic (F18)       |
| <input type="checkbox"/> Red Parent Material (TF2)  |
| <input type="checkbox"/> Other (Explain in Remarks) |

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No X**Remarks:**

Fill slope with upland vegetation only. No soil pit dug.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- |   |
|---|
| <input type="checkbox"/> Water Marks (B1) (Riverine)            |
| <input type="checkbox"/> Sediment Deposits (B2) (Riverine)      |
| <input type="checkbox"/> Drift Deposits (B3) (Riverine)         |
| <input type="checkbox"/> Drainage Patterns (B10)                |
| <input type="checkbox"/> Dry-Season Water Table (C2)            |
| <input type="checkbox"/> Crayfish Burrows (C8)                  |
| <input type="checkbox"/> Saturation Visible on Aerial Imag.(C9) |
| <input type="checkbox"/> Shallow Aquitard (D3)                  |
| <input type="checkbox"/> FAC-Neutral Test (D5)                  |

**Field Observations:**Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Water Table Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Saturation Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_

(includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

**Remarks:**

Area dry.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 7/23/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 19 Sampling Point: 26-N-201207231342  
 Investigators: Donovan Gross Nate Nichols Section, Township, Range S 36 T 3 R 1  
 Landform (hillslope, terrace, etc.): Basin Local Relief (concave, convex, none): Concave Slope(%) 1  
 Subregion (LRR): LRR D Lat: 40.9549350727 Long: -111.892267514 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Airport silt loam, 0 to 2 percent slopes NWI Classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology X, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> Wetland ID: _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	
Remarks: Sampling point not a wetland.	

## VEGETATION— Use scientific names of plants.

	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
<u>Tree Stratum</u>			
<u>Shrub Stratum</u>			
<u>Herb Stratum</u> (Plot size: <u>30 Ft</u> )			
Carex praegracilis	30	Y	FACW
Elaeagnus angustifolia	20	Y	FAC
Dipsacus fullonum	15	N	FAC
Distichlis spicata	10	N	FAC
Rosa woodsii	10	N	FACU
Thinopyrum intermedium	10	N	UPL
	95	=Total Cover	

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 2 (A)  
 Total Number of Dominant Species Across all Strata: 2 (B)  
 Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>30</u>	x 2 = <u>60</u>
FAC species <u>45</u>	x 3 = <u>135</u>
FACU species <u>10</u>	x 4 = <u>40</u>
UPL species <u>10</u>	x 5 = <u>50</u>
Column Totals: <u>95</u> (A)	<u>285</u> (B)
Prevalence Index = B/A= <u>3.00</u>	

### Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
 Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No \_\_\_\_\_

% Bare Ground in Herb Stratum 0 % Cover of Biotic Crust \_\_\_\_\_

Remarks: (Include photo numbers here or on a separate sheet.)  
 Vegetation qualifies as hydrophytic but most FACW species are dying.



**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)		Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 8	10YR	2.0/ 2		0			SILTY CLAY LOAM	
8 to 18	7.5YR	4.0/ 2		0			SILTY CLAY LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)           |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)       |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)   |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)   |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input type="checkbox"/> Depleted Matrix (F3)       |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)     |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)          |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |   |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- |   |
|---|
| <input type="checkbox"/> 1 cm Muck (A9) (LRR C)     |
| <input type="checkbox"/> 2 cm Muck (A10) (LRR B)    |
| <input type="checkbox"/> Reduced Vertic (F18)       |
| <input type="checkbox"/> Red Parent Material (TF2)  |
| <input type="checkbox"/> Other (Explain in Remarks) |

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No XRemarks:  
No hydric soil indicators.**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- |   |
|---|
| <input type="checkbox"/> Water Marks (B1) (Riverine)            |
| <input type="checkbox"/> Sediment Deposits (B2) (Riverine)      |
| <input type="checkbox"/> Drift Deposits (B3) (Riverine)         |
| <input type="checkbox"/> Drainage Patterns (B10)                |
| <input type="checkbox"/> Dry-Season Water Table (C2)            |
| <input type="checkbox"/> Crayfish Burrows (C8)                  |
| <input type="checkbox"/> Saturation Visible on Aerial Imag.(C9) |
| <input type="checkbox"/> Shallow Aquitard (D3)                  |
| <input checked="" type="checkbox"/> FAC-Neutral Test (D5)       |

**Field Observations:**

Surface Water Present?	Yes _____ No <u>X</u>	Depth (inches):	____
Water Table Present?	Yes _____ No <u>X</u>	Depth (inches):	____
Saturation Present?	Yes _____ No <u>X</u>	Depth (inches):	____

(includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No primary hydrology indicators.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 5/7/2013  
 Applicant/Owner: UDOT State: UT Map/Sheet: 19 Sampling Point: 26-N-201305071141  
 Investigators: Mike Perkins Nate Nichols Section, Township, Range S 25 T 3 R 1  
 Landform (hillslope, terrace, etc.): Depression Local Relief (concave, convex, none): None Slope(%) 2  
 Subregion (LRR): LRR D Lat: 40.964977 Long: -111.907007 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Draper loam, drained, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland?	Yes _____ No <u>X</u>
Hydric Soil Present?	Yes _____ No <u>X</u>		
Wetland Hydrology Present?	Yes _____ No <u>X</u>		Wetland ID: _____

Remarks:  
 Upland area contains fill material from adjacent Legacy Park road construction. Weedy, upland species and dredged material from adjacent canal.

## VEGETATION— Use scientific names of plants.

**Absolute % Cover** **Dominant Species** **Indicator Status**

Tree Stratum (Plot size: 30 Ft )

Elaeagnus angustifolia

5

Y

FAC

5

=Total Cover

Shrub Stratum

Herb Stratum (Plot size: 30 Ft )

Bromus arvensis

60

Y

FACU

Pascopyrum smithii

10

N

FAC

Poa bulbosa

10

N

UPL

Thinopyrum intermedium

10

N

UPL

Lepidium latifolium

5

N

FAC

95

=Total Cover

Vine Stratum

## Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across all Strata: 2 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 50.0% (A/B)

## Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>0</u>	x 2 = <u>0</u>
FAC species <u>20</u>	x 3 = <u>60</u>
FACU species <u>60</u>	x 4 = <u>240</u>
UPL species <u>20</u>	x 5 = <u>100</u>
Column Totals: <u>100</u> (A)	<u>400</u> (B)

Prevalence Index = B/A = 4.00

## Hydrophytic Vegetation Indicators:

☐ Rapid Test for Hydrophytic Vegetation  
☐ Dominance Test > 50%  
☐ Prevalence Index ≤ 3.0  
☐ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
☐ Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes \_\_\_\_\_ No X

% Bare Ground in Herb Stratum 5 % Cover of Biotic Crust 0

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation dominated by upland species.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)           |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)       |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)   |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)   |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input type="checkbox"/> Depleted Matrix (F3)       |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)     |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)          |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |   |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- |   |
|---|
| <input type="checkbox"/> 1 cm Muck (A9) (LRR C)     |
| <input type="checkbox"/> 2 cm Muck (A10) (LRR B)    |
| <input type="checkbox"/> Reduced Vertic (F18)       |
| <input type="checkbox"/> Red Parent Material (TF2)  |
| <input type="checkbox"/> Other (Explain in Remarks) |

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No X**Remarks:**

No soil data collected since sampling point is dominated by upland vegetation in roadway fill slope.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- |   |
|---|
| <input type="checkbox"/> Water Marks (B1) (Riverine)            |
| <input type="checkbox"/> Sediment Deposits (B2) (Riverine)      |
| <input type="checkbox"/> Drift Deposits (B3) (Riverine)         |
| <input type="checkbox"/> Drainage Patterns (B10)                |
| <input type="checkbox"/> Dry-Season Water Table (C2)            |
| <input type="checkbox"/> Crayfish Burrows (C8)                  |
| <input type="checkbox"/> Saturation Visible on Aerial Imag.(C9) |
| <input type="checkbox"/> Shallow Aquitard (D3)                  |
| <input type="checkbox"/> FAC-Neutral Test (D5)                  |

**Field Observations:**Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Water Table Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Saturation Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_

(includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

**Remarks:**

No indicators of wetland hydrology observed.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 5/7/2013  
 Applicant/Owner: UDOT State: UT Map/Sheet: 19 Sampling Point: 26-N-201305071226  
 Investigators: Mike Perkins Nate Nichols Section, Township, Range S 25 T 3 R 1  
 Landform (hillslope, terrace, etc.): Depression Local Relief (concave, convex, none): None Slope(%) 2  
 Subregion (LRR): LRR D Lat: 40.959001 Long: -111.892218 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Draper loam, drained, 0 to 1 slopes NWI Classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> <b>Wetland ID:</b> _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	

Remarks:  
 Non-wetland sampling point used to help establish southern wetland boundary.

### VEGETATION— Use scientific names of plants.

<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
<u>8</u>	<u>Y</u>	<u>FAC</u>
<u>8</u>	<u>=Total Cover</u>	
<u>5</u>	<u>Y</u>	<u>FACU</u>
<u>5</u>	<u>=Total Cover</u>	
<u>90</u>	<u>Y</u>	<u>FACW</u>
<u>5</u>	<u>N</u>	<u>UPL</u>
<u>5</u>	<u>N</u>	<u>FAC</u>
<u>5</u>	<u>N</u>	<u>UPL</u>
<u>105</u>	<u>=Total Cover</u>	

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 2 (A)  
 Total Number of Dominant Species Across all Strata: 3 (B)  
 Percent of Dominant Species That are OBL, FACW, or FAC: 66.7% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>90</u>	x 2 = <u>180</u>
FAC species <u>13</u>	x 3 = <u>39</u>
FACU species <u>5</u>	x 4 = <u>20</u>
UPL species <u>10</u>	x 5 = <u>50</u>
Column Totals: <u>118</u> (A)	<u>289</u> (B)
Prevalence Index = B/A= <u>2.45</u>	

### Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
 Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No \_\_\_\_\_

% Bare Ground in Herb Stratum 0 % Cover of Biotic Crust 0

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation qualifies as hydrophytic



Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix			Redox Features				Texture	Remarks
	Color (moist)		%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 9	10YR	3 / 1	100					SILTY CLAY LOAM	
9 to 14	10YR	3 / 1	90	10YR 4/1	10	D	M	SILTY CLAY LOAM	
14 to 18	10YR	3 / 1	60	10YR 4/1	40	D	M	SILTY CLAY LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.      <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators:**

☐ Histosol (A1)

☐ Histic Epipedon (A2)

☐ Black Histic (A3)

☐ Hydrogen Sulfide (A4)

☐ Stratified Layers (A5) LRR C

☐ 1 cm Muck (A9) LRR F D

☐ Depleted Below Dark Surface (A11)

☐ Thick Dark Surface (A12)

☐ Sandy Mucky Mineral (S1)

☐ Sandy Gleyed Matrix (S4)

☐ Sandy Redox (S5)

☐ Stripped Matrix (S6)

☐ Loamy Mucky Mineral (F1)

☐ Loamy Gleyed Matrix (F2)

☐ Depleted Matrix (F3)

☐ Redox Dark Surface (F6)

☐ Depleted Dark Surface (F7)

☐ Redox Depressions (F8)

☐ Vernal Pools (F9)

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

☐ 1 cm Muck (A9) (LRR C)

☐ 2 cm Muck (A10) (LRR B)

☐ Reduced Vertic (F18)

☐ Red Parent Material (TF2)

☐ Other (Explain in Remarks)

☐ **Restrictive Layer (if observed):**

Type:

Depth (inches):

**Hydric Soil Present?**      Yes      No X

Remarks:

Soil profile doesn't meet any indicators.

**Field Observations:**

Surface Water Present?      Yes      No X      Depth (inches):

Water Table Present?      Yes X      No      Depth (inches): 18

Saturation Present?      Yes X      No      Depth (inches): 16

(includes capillary fringe)

**Wetland Hydrology Present?**      Yes      No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Soil moist towards surface, but not saturated until 16".

HYDROLOGY

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

☐ Surface Water (A1)

☐ High Water Table (A2)

☐ Saturation (A3)

☐ Water Marks (B1) (Nonriverine)

☐ Sediment Deposits (B2) (Nonriverine)

☐ Drift Deposits (B3) (Nonriverine)

☐ Surface Soil Cracks (B6)

☐ Inundation Visible on Aerial Imagery (B7)

☐ Water-Stained Leaves (B9)

☐ Salt Crust (B11)

☐ Biotic Crust (B12)

☐ Aquatic Fauna (B13)

☐ Hydrogen Sulfide Odor (C1)

☐ Oxidized Rhizospheres along Living Roots (C3)

☐ Presence of Reduced Iron (C4)

☐ Recent Iron Reduction in Tilled Soils (C6)

☐ Thin Muck Surface (C7)

☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

☐ Water Marks (B1) (Riverine)

☐ Sediment Deposits (B2) (Riverine)

☐ Drift Deposits (B3) (Riverine)

☐ Drainage Patterns (B10)

☐ Dry-Season Water Table (C2)

☐ Crayfish Burrows (C8)

☐ Saturation Visible on Aerial Imag.(C9)

☐ Shallow Aquitard (D3)

☐ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present?      Yes      No X      Depth (inches):

Water Table Present?      Yes X      No      Depth (inches): 18

Saturation Present?      Yes X      No      Depth (inches): 16

(includes capillary fringe)

**Wetland Hydrology Present?**      Yes      No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Soil moist towards surface, but not saturated until 16".

US Army Corps of Engineers

HDR

Arid West – Version 2.0

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 5/7/2013  
 Applicant/Owner: UDOT State: UT Map/Sheet: 19 Sampling Point: 26-N-201305071622  
 Investigators: Mike Perkins Nate Nichols Section, Township, Range S 36 T 3 R 1  
 Landform (hillslope, terrace, etc.): Depression Local Relief (concave, convex, none): None Slope(%) 2  
 Subregion (LRR): LRR D Lat: 40.955084 Long: -111.893738 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Cudahy silt loam, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> <b>Wetland ID:</b> _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	

Remarks:  
 Sampling point in area dominated by meadow fescue does not meet wetland criteria.

## VEGETATION— Use scientific names of plants.

**Absolute % Cover** **Dominant Species** **Indicator Status**

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

Festuca pratensis	60	Y	FACU
Atriplex micrantha	10	N	UPL
Carex praegracilis	10	N	FACW
Distichlis spicata	10	N	FAC
Lepidium latifolium	10	N	FAC
	100	=Total Cover	

### Vine Stratum

## Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 0 (A)  
 Total Number of Dominant Species Across all Strata: 1 (B)  
 Percent of Dominant Species That are OBL, FACW, or FAC: 0.0% (A/B)

## Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>10</u>	x 2 = <u>20</u>
FAC species <u>20</u>	x 3 = <u>60</u>
FACU species <u>60</u>	x 4 = <u>240</u>
UPL species <u>10</u>	x 5 = <u>50</u>
Column Totals: <u>100</u> (A)	<u>370</u> (B)
Prevalence Index = B/A= <u>3.70</u>	

## Hydrophytic Vegetation Indicators:

☐ Rapid Test for Hydrophytic Vegetation  
☐ Dominance Test > 50%  
☐ Prevalence Index ≤ 3.0  
☐ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
☐ Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes \_\_\_\_\_ No X

% Bare Ground in Herb Stratum 0 % Cover of Biotic Crust 0

Remarks: (Include photo numbers here or on a separate sheet.)  
 Vegetation does not qualify as hydrophytic.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 1	10YR	3 / 2	100				Organic	Root Mat
1 to 13	10YR	3 / 1	100				SILTY CLAY LOAM	
13 to 18	7.5YR	4 / 2	100				SILTY CLAY LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- ☐ Histosol (A1)  
☐ Histic Epipedon (A2)  
☐ Black Histic (A3)  
☐ Hydrogen Sulfide (A4)  
☐ Stratified Layers (A5) LRR C  
☐ 1 cm Muck (A9) LRR F D  
☐ Depleted Below Dark Surface (A11)  
☐ Thick Dark Surface (A12)  
☐ Sandy Mucky Mineral (S1)  
☐ Sandy Gleyed Matrix (S4)

- ☐ Sandy Redox (S5)  
☐ Stripped Matrix (S6)  
☐ Loamy Mucky Mineral (F1)  
☐ Loamy Gleyed Matrix (F2)  
☐ Depleted Matrix (F3)  
☐ Redox Dark Surface (F6)  
☐ Depleted Dark Surface (F7)  
☐ Redox Depressions (F8)  
☐ Vernal Pools (F9)

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)  
☐ 2 cm Muck (A10) (LRR B)  
☐ Reduced Vertic (F18)  
☐ Red Parent Material (TF2)  
☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No X

## Remarks:

No hydric soil indicators observed in soil profile.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)  
☐ High Water Table (A2)  
☐ Saturation (A3)  
☐ Water Marks (B1) (Nonriverine)  
☐ Sediment Deposits (B2) (Nonriverine)  
☐ Drift Deposits (B3) (Nonriverine)  
☐ Surface Soil Cracks (B6)  
☐ Inundation Visible on Aerial Imagery (B7)  
☐ Water-Stained Leaves (B9)  
☐ Salt Crust (B11)  
☐ Biotic Crust (B12)  
☐ Aquatic Fauna (B13)  
☐ Hydrogen Sulfide Odor (C1)  
☐ Oxidized Rhizospheres along Living Roots (C3)  
☐ Presence of Reduced Iron (C4)  
☐ Recent Iron Reduction in Tilled Soils (C6)  
☐ Thin Muck Surface (C7)  
☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)  
☐ Sediment Deposits (B2) (Riverine)  
☐ Drift Deposits (B3) (Riverine)  
☐ Drainage Patterns (B10)  
☐ Dry-Season Water Table (C2)  
☐ Crayfish Burrows (C8)  
☐ Saturation Visible on Aerial Imag.(C9)  
☐ Shallow Aquitard (D3)  
☐ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_  
Water Table Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_  
Saturation Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_  
(includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

No hydrology indicators observed.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 6/26/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 19 Sampling Point: 26-W-201206261208  
 Investigators: Donovan Gross Section, Township, Range S 31 T 3 R 1  
 Landform (hillslope, terrace, etc.): Basin Local Relief (concave, convex, none): Concave Slope(%) 5  
 Subregion (LRR): LRR D Lat: 40.9502028869 Long: -111.890353565 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Ironton silt loam, 1 to 3 percent slopes NWI Classification: PEMA

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No        (If No, explain in Remarks)  
 Are Vegetation       , Soil       , Hydrology       , significantly disturbed? Are "Normal Circumstances" present? Yes X No         
 Are Vegetation       , Soil       , Hydrology       , naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No <u>      </u> Hydric Soil Present? Yes <u>X</u> No <u>      </u> Wetland Hydrology Present? Yes <u>X</u> No <u>      </u>	Is the Sampled Area within a Wetland? Yes <u>X</u> No <u>      </u> Wetland ID: <u>26-IW-52</u>
Remarks: Wetland meadow.	

## VEGETATION— Use scientific names of plants.

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
Juncus arcticus	20	Y	FACW
Juncus torreyi	20	Y	FACW
Schoenoplectus pungens	20	Y	OBL
Trifolium fragiferum	15	N	FACU
Xanthium strumarium	10	N	FAC
	85	=Total Cover	

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 3 (A)  
 Total Number of Dominant Species Across all Strata: 3 (B)  
 Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>20</u>	x 1 = <u>20</u>
FACW species <u>40</u>	x 2 = <u>80</u>
FAC species <u>10</u>	x 3 = <u>30</u>
FACU species <u>15</u>	x 4 = <u>60</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>85</u> (A)	<u>190</u> (B)

Prevalence Index = B/A = 2.24

### Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
 Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No       

% Bare Ground in Herb Stratum 0 % Cover of Biotic Crust

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation is hydrophytic.



**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 3	10YR 4.0/ 2	100					SILTY CLAY LOAM	
3 to 8	GLE Y 1 4.0/ N	100					CLAY	
8 to 18	GLE Y 1 7.0/ N	100					CLAY	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |  |
|--|--|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)                    |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)                |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)            |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input checked="" type="checkbox"/> Loamy Gleyed Matrix (F2) |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input type="checkbox"/> Depleted Matrix (F3)                |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)             |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7)          |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)              |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)                   |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |  |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- |   |
|---|
| <input type="checkbox"/> 1 cm Muck (A9) (LRR C)     |
| <input type="checkbox"/> 2 cm Muck (A10) (LRR B)    |
| <input type="checkbox"/> Reduced Vertic (F18)       |
| <input type="checkbox"/> Red Parent Material (TF2)  |
| <input type="checkbox"/> Other (Explain in Remarks) |

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes X No \_\_\_\_\_Remarks:  
Meets F2.**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input checked="" type="checkbox"/> Surface Soil Cracks (B6)       | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- |   |
|---|
| <input type="checkbox"/> Water Marks (B1) (Riverine)            |
| <input type="checkbox"/> Sediment Deposits (B2) (Riverine)      |
| <input type="checkbox"/> Drift Deposits (B3) (Riverine)         |
| <input type="checkbox"/> Drainage Patterns (B10)                |
| <input type="checkbox"/> Dry-Season Water Table (C2)            |
| <input type="checkbox"/> Crayfish Burrows (C8)                  |
| <input type="checkbox"/> Saturation Visible on Aerial Imag.(C9) |
| <input type="checkbox"/> Shallow Aquitard (D3)                  |
| <input checked="" type="checkbox"/> FAC-Neutral Test (D5)       |

**Field Observations:**

Surface Water Present?	Yes _____ No <u>X</u>	Depth (inches): _____
Water Table Present?	Yes _____ No <u>X</u>	Depth (inches): _____
Saturation Present?	Yes _____ No <u>X</u>	Depth (inches): _____

(includes capillary fringe)

**Wetland Hydrology Present?** Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Prominent surface soil cracks suggest seasonal ponding.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 7/16/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 19 Sampling Point: 26-W-201207161128  
 Investigators: Trent Toler Section, Township, Range S 31 T 3 R 1  
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): Concave Slope(%) 0  
 Subregion (LRR): LRR D Lat: 40.9483656986 Long: -111.890485567 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Ironston silt loam, 1 to 3 percent slopes NWI Classification: PEMC  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No        (If No, explain in Remarks)  
 Are Vegetation X, Soil X, Hydrology X, significantly disturbed? Are "Normal Circumstances" present? Yes        No X  
 Are Vegetation       , Soil       , Hydrology       , naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No <u>      </u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No <u>      </u> Wetland ID: <u>26-CW-51</u>
Hydric Soil Present? Yes <u>X</u> No <u>      </u>	
Wetland Hydrology Present? Yes <u>X</u> No <u>      </u>	

Remarks:  
 Stormwater detention basin, constructed into a landscaping feature for development.

## VEGETATION— Use scientific names of plants.

	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
<u>Tree Stratum</u>			
<u>Shrub Stratum</u>			
<u>Herb Stratum</u> (Plot size: <u>30 Ft</u> )			
<u>Phragmites australis</u>	<u>100</u>	<u>Y</u>	<u>FACW</u>
	<u>100</u>	<u>=Total Cover</u>	
<u>Vine Stratum</u>			

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 1 (A)  
 Total Number of Dominant Species Across all Strata: 1 (B)  
 Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

### Prevalence Index Worksheet:

	Total % Cover of:	Multiply by:
OBL species	<u>0</u>	x 1 = <u>0</u>
FACW species	<u>100</u>	x 2 = <u>200</u>
FAC species	<u>0</u>	x 3 = <u>0</u>
FACU species	<u>0</u>	x 4 = <u>0</u>
UPL species	<u>0</u>	x 5 = <u>0</u>
Column Totals:	<u>100</u> (A)	<u>200</u> (B)
Prevalence Index = B/A= <u>2.00</u>		

### Hydrophytic Vegetation Indicators:

       Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
       Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
       Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

### Hydrophytic

Vegetation Present? Yes X No       

% Bare Ground in Herb Stratum 0 % Cover of Biotic Crust       

Remarks: (Include photo numbers here or on a separate sheet.)

Tall and dense Phragmites.

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix			Redox Features				Texture	Remarks
	Color (moist)		%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 3	10YR	2.0/ 2	100					SILTY CLAY LOAM	
3 to 7	10YR	3.0/ 1	85	10YR 5/1	10	D	M	SILTY CLAY LOAM	2.5Y 7/1 D M 5%
7 to 18	2.5Y	5.0/ 1	100					CLAY LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.      <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators:**

☐ Histosol (A1)☐ Histic Epipedon (A2)☐ Black Histic (A3)☐ Hydrogen Sulfide (A4)☐ Stratified Layers (A5) LRR C☐ 1 cm Muck (A9) LRR F D☐ Depleted Below Dark Surface (A11)☐ Thick Dark Surface (A12)☐ Sandy Mucky Mineral (S1)☐ Sandy Gleyed Matrix (S4)☐ Sandy Redox (S5)☐ Stripped Matrix (S6)☐ Loamy Mucky Mineral (F1)☐ Loamy Gleyed Matrix (F2)☒ Depleted Matrix (F3)☐ Redox Dark Surface (F6)☒ Depleted Dark Surface (F7)☐ Redox Depressions (F8)☐ Vernal Pools (F9)

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

☐ 1 cm Muck (A9) (LRR C)☐ 2 cm Muck (A10) (LRR B)☐ Reduced Vertic (F18)☐ Red Parent Material (TF2)☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: Depth (inches):

**Hydric Soil Present?**      Yes ☒ No ☐

Remarks:

Meets F7 and F3 indicators.

HYDROLOGY

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

☐ Surface Water (A1)☐ High Water Table (A2)☒ Saturation (A3)☐ Water Marks (B1) (Nonriverine)☐ Sediment Deposits (B2) (Nonriverine)☐ Drift Deposits (B3) (Nonriverine)☐ Surface Soil Cracks (B6)☐ Inundation Visible on Aerial Imagery (B7)☐ Water-Stained Leaves (B9)☐ Salt Crust (B11)☐ Biotic Crust (B12)☒ Aquatic Fauna (B13)☐ Hydrogen Sulfide Odor (C1)☐ Oxidized Rhizospheres along Living Roots (C3)☐ Presence of Reduced Iron (C4)☐ Recent Iron Reduction in Tilled Soils (C6)☐ Thin Muck Surface (C7)☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

☐ Water Marks (B1) (Riverine)☐ Sediment Deposits (B2) (Riverine)☐ Drift Deposits (B3) (Riverine)☐ Drainage Patterns (B10)☐ Dry-Season Water Table (C2)☐ Crayfish Burrows (C8)☐ Saturation Visible on Aerial Imag.(C9)☐ Shallow Aquitard (D3)☒ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present?      Yes ☐ No ☒      Depth (inches): 

--

Water Table Present?      Yes ☒ No ☐      Depth (inches): 

14

Saturation Present?      Yes ☒ No ☐      Depth (inches): 

10

(includes capillary fringe)

**Wetland Hydrology Present?**      Yes ☒ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Water table may be higher (pit not observed very long).

US Army Corps of Engineers

HDR

Arid West – Version 2.0

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 7/23/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 19 Sampling Point: 26-W-201207231000  
 Investigators: Donovan Gross Nate Nichols Section, Township, Range S 36 T 3 R 1  
 Landform (hillslope, terrace, etc.): Basin Local Relief (concave, convex, none): Concave Slope(%) 20  
 Subregion (LRR): LRR D Lat: 40.9488881508 Long: -111.892210108 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Airport silt loam, 0 to 2 percent slopes NWI Classification: PEMC

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No        (If No, explain in Remarks)  
 Are Vegetation       , Soil       , Hydrology       , significantly disturbed? Are "Normal Circumstances" present? Yes X No         
 Are Vegetation       , Soil       , Hydrology X, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No <u>      </u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No <u>      </u> <b>Wetland ID:</b> <u>26-W-32</u>
Hydric Soil Present? Yes <u>X</u> No <u>      </u>	
Wetland Hydrology Present? Yes <u>      </u> No <u>X</u>	

Remarks:  
 Sample point determined to be a wetland with hydrophytic vegetation and hydric soils. Hydrology assumed during wetter portion of growing season.

## VEGETATION— Use scientific names of plants.

	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
<u>Tree Stratum</u>			
<u>Shrub Stratum</u>			
<u>Herb Stratum</u> (Plot size: <u>30 Ft</u> )			
Juncus arcticus	40	Y	FACW
Distichlis spicata	20	Y	FAC
Hordeum jubatum	20	Y	FAC
Hordeum pusillum	10	N	FACU
	90	=Total Cover	
<u>Vine Stratum</u>			

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 3 (A)  
 Total Number of Dominant Species Across all Strata: 3 (B)  
 Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>40</u>	x 2 = <u>80</u>
FAC species <u>40</u>	x 3 = <u>120</u>
FACU species <u>10</u>	x 4 = <u>40</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>90</u> (A)	<u>240</u> (B)

Prevalence Index = B/A = 2.67

### Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
       Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
       Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No       

% Bare Ground in Herb Stratum 5 % Cover of Biotic Crust       

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation is hydrophytic.



**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix			Redox Features				Texture	Remarks
	Color (moist)		%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 6	10YR	3.0 / 2	100					SILTY CLAY LOAM	
6 to 15	10YR	4.0 / 1	40	10YR 7/1	60	D	M	SILTY CLAY	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |  |
|--|--|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)                |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)            |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)        |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)        |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input checked="" type="checkbox"/> Depleted Matrix (F3) |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)         |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7)      |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)          |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)               |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |  |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)  
☐ 2 cm Muck (A10) (LRR B)  
☐ Reduced Vertic (F18)  
☐ Red Parent Material (TF2)  
☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☒ **Restrictive Layer (if observed):**Type: calcicDepth (inches): 15**Hydric Soil Present?** Yes X No     

Remarks:  
Soil profile meets F3 indicator.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)  
☐ Sediment Deposits (B2) (Riverine)  
☐ Drift Deposits (B3) (Riverine)  
☐ Drainage Patterns (B10)  
☐ Dry-Season Water Table (C2)  
☐ Crayfish Burrows (C8)  
☐ Saturation Visible on Aerial Imag.(C9)  
☐ Shallow Aquitard (D3)  
☒ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present?	Yes <u>    </u>	No <u>X</u>	Depth (inches):	<u>    --    </u>
Water Table Present?	Yes <u>    </u>	No <u>X</u>	Depth (inches):	<u>    --    </u>
Saturation Present?	Yes <u>    </u>	No <u>X</u>	Depth (inches):	<u>    --    </u>

(includes capillary fringe)

**Wetland Hydrology Present?** Yes      No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No hydrology indicators identified but sampled during dry time of year. Passes-FAC Neutral Test.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 7/23/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 19 Sampling Point: 26-W-201207231106  
 Investigators: Donovan Gross Nate Nichols Section, Township, Range S 36 T 3 R 1  
 Landform (hillslope, terrace, etc.): Basin Local Relief (concave, convex, none): Concave Slope(%) 5  
 Subregion (LRR): LRR D Lat: 40.949681742 Long: -111.892199054 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Airport silt loam, 0 to 2 percent slopes NWI Classification: PEMF

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No        (If No, explain in Remarks)  
 Are Vegetation       , Soil       , Hydrology       , significantly disturbed? Are "Normal Circumstances" present? Yes X No         
 Are Vegetation       , Soil       , Hydrology X, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No <u>      </u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No <u>      </u> <b>Wetland ID:</b> <u>26-W-33</u>
Hydric Soil Present? Yes <u>X</u> No <u>      </u>	
Wetland Hydrology Present? Yes <u>      </u> No <u>X</u>	

Remarks:  
 Sample point determined to be a wetland with hydrophytic vegetation and hydric soils. Hydrology assumed during wetter portion of growing season.

## VEGETATION— Use scientific names of plants.

**Absolute % Cover**   **Dominant Species**   **Indicator Status**

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

Juncus arcticus	40	Y	FACW
Carex praegracilis	30	Y	FACW
Distichlis spicata	20	Y	FAC
Dipsacus fullonum	10	N	FAC
	100	=Total Cover	

### Vine Stratum

## Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across all Strata: 3 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

## Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>70</u>	x 2 = <u>140</u>
FAC species <u>30</u>	x 3 = <u>90</u>
FACU species <u>0</u>	x 4 = <u>0</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>100</u> (A)	<u>230</u> (B)

Prevalence Index = B/A = 2.30

## Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
       Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
       Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No       

% Bare Ground in Herb Stratum 0 % Cover of Biotic Crust       

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation qualifies as hydrophytic.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)**

Depth (inches)	Matrix			Redox Features				Texture	Remarks
	Color (moist)		%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 7	10YR	3.0 / 1	95	10YR 7/2	5	D	M	SILTY CLAY LOAM	
7 to 10	10YR	4 / 2	20	10YR 7/2	80	D	M	CLAY LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |  |
|--|--|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)                |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)            |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)        |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)        |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input checked="" type="checkbox"/> Depleted Matrix (F3) |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)         |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7)      |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)          |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)               |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |  |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)  
☐ 2 cm Muck (A10) (LRR B)  
☐ Reduced Vertic (F18)  
☐ Red Parent Material (TF2)  
☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☒ **Restrictive Layer (if observed):**Type: calcicDepth (inches): 10**Hydric Soil Present?** Yes X No     

## Remarks:

Soil meets criteria for hydric indicator F3.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)  
☐ Sediment Deposits (B2) (Riverine)  
☐ Drift Deposits (B3) (Riverine)  
☐ Drainage Patterns (B10)  
☐ Dry-Season Water Table (C2)  
☐ Crayfish Burrows (C8)  
☐ Saturation Visible on Aerial Imag.(C9)  
☐ Shallow Aquitard (D3)  
☒ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present?	Yes <u>    </u>	No <u>X</u>	Depth (inches):	<u>    --    </u>
Water Table Present?	Yes <u>    </u>	No <u>X</u>	Depth (inches):	<u>    --    </u>
Saturation Present?	Yes <u>    </u>	No <u>X</u>	Depth (inches):	<u>    --    </u>

(includes capillary fringe)

**Wetland Hydrology Present?** Yes      No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

No primary hydrology indicators identified but sampled during dry time of year and the vegetation passes the FAC-Neutral Test.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 5/7/2013  
 Applicant/Owner: UDOT State: UT Map/Sheet: 19 Sampling Point: 26-W-201305071206  
 Investigators: Mike Perkins Nate Nichols Section, Township, Range S 25 T 3 R 1  
 Landform (hillslope, terrace, etc.): Depression Local Relief (concave, convex, none): None Slope(%) 2  
 Subregion (LRR): LRR D Lat: 40.957035 Long: -111.892206 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Draper loam, drained, 0 to 1 percent slopes NWI Classification: PEMC

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No        (If No, explain in Remarks)  
 Are Vegetation       , Soil       , Hydrology       , significantly disturbed? Are "Normal Circumstances" present? Yes X No         
 Are Vegetation       , Soil       , Hydrology       , naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No <u>      </u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No <u>      </u> Wetland ID: <u>25-IW-39</u>
Hydric Soil Present? Yes <u>X</u> No <u>      </u>	
Wetland Hydrology Present? Yes <u>X</u> No <u>      </u>	

Remarks:  
 Sampling point within wetland.

## VEGETATION— Use scientific names of plants.

**Absolute % Cover** **Dominant Species** **Indicator Status**

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

Carex praegracilis	80	Y	FACW
Juncus arcticus	15	N	FACW
Typha latifolia	5	N	OBL
	100	=Total Cover	

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across all Strata: 1 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>5</u>	x 1 = <u>5</u>
FACW species <u>95</u>	x 2 = <u>190</u>
FAC species <u>0</u>	x 3 = <u>0</u>
FACU species <u>0</u>	x 4 = <u>0</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>100</u> (A)	<u>195</u> (B)

Prevalence Index = B/A = 1.95

### Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
 Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No       

% Bare Ground in Herb Stratum % Cover of Biotic Crust

Remarks: (Include photo numbers here or on a separate sheet.)  
 Vegetation is hydrophytic.



**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)**

Depth (inches)	Matrix			Redox Features				Texture	Remarks
	Color (moist)		%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 4	10YR	3 / 1	100					CLAY LOAM	
4 to 11	10YR	5 / 1	100					SILTY CLAY LOAM	
11 to	/								11+ Large Stone and cobble

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |  |
|--|--|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)                |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)            |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)        |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)        |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input checked="" type="checkbox"/> Depleted Matrix (F3) |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)         |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7)      |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)          |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)               |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |  |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- |   |
|---|
| <input type="checkbox"/> 1 cm Muck (A9) (LRR C)     |
| <input type="checkbox"/> 2 cm Muck (A10) (LRR B)    |
| <input type="checkbox"/> Reduced Vertic (F18)       |
| <input type="checkbox"/> Red Parent Material (TF2)  |
| <input type="checkbox"/> Other (Explain in Remarks) |

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes X No \_\_\_\_\_Remarks:  
Soil profile meets F3 indicator.**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input checked="" type="checkbox"/> High Water Table (A2)          | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input checked="" type="checkbox"/> Saturation (A3)                | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- |   |
|---|
| <input type="checkbox"/> Water Marks (B1) (Riverine)            |
| <input type="checkbox"/> Sediment Deposits (B2) (Riverine)      |
| <input type="checkbox"/> Drift Deposits (B3) (Riverine)         |
| <input type="checkbox"/> Drainage Patterns (B10)                |
| <input type="checkbox"/> Dry-Season Water Table (C2)            |
| <input type="checkbox"/> Crayfish Burrows (C8)                  |
| <input type="checkbox"/> Saturation Visible on Aerial Imag.(C9) |
| <input type="checkbox"/> Shallow Aquitard (D3)                  |
| <input checked="" type="checkbox"/> FAC-Neutral Test (D5)       |

**Field Observations:**

Surface Water Present?	Yes _____ No <u>X</u>	Depth (inches): _____
Water Table Present?	Yes <u>X</u> No _____	Depth (inches): <u>9</u>
Saturation Present?	Yes <u>X</u> No _____	Depth (inches): <u>4</u>
(includes capillary fringe)		

**Wetland Hydrology Present?** Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:  
Wetland hydrology present.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 5/7/2013  
 Applicant/Owner: UDOT State: UT Map/Sheet: 19 Sampling Point: 26-W-201305071545  
 Investigators: Mike Perkins Nate Nichols Section, Township, Range S 16 T 3 R 1  
 Landform (hillslope, terrace, etc.): Depression Local Relief (concave, convex, none): None Slope(%) 2  
 Subregion (LRR): LRR D Lat: 40.955370 Long: -111.893857 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Cudahy silt loam, 0 to 1 percent slopes NWI Classification: PEMC  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No        (If No, explain in Remarks)  
 Are Vegetation       , Soil       , Hydrology       , significantly disturbed? Are "Normal Circumstances" present? Yes X No         
 Are Vegetation       , Soil       , Hydrology       , naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No <u>      </u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No <u>      </u> <b>Wetland ID:</b> <u>26-W-60</u>
Hydric Soil Present? Yes <u>X</u> No <u>      </u>	
Wetland Hydrology Present? Yes <u>X</u> No <u>      </u>	

Remarks:  
 Sampling point is within a wetland.

## VEGETATION— Use scientific names of plants.

	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
<u>Tree Stratum</u> (Plot size: <u>30 Ft</u> )			
<u>Elaeagnus angustifolia</u>	<u>5</u>	<u>Y</u>	<u>FAC</u>
	<u>5</u> =Total Cover		
<u>Shrub Stratum</u>			
<u>Herb Stratum</u> (Plot size: <u>30 Ft</u> )			
<u>Carex praegracilis</u>	<u>55</u>	<u>Y</u>	<u>FACW</u>
<u>Distichlis spicata</u>	<u>40</u>	<u>Y</u>	<u>FAC</u>
<u>Festuca pratensis</u>	<u>5</u>	<u>N</u>	<u>FACU</u>
<u>Taraxacum officinale</u>	<u>5</u>	<u>N</u>	<u>FACU</u>
	<u>105</u> =Total Cover		
<u>Vine Stratum</u>			

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 3 (A)  
 Total Number of Dominant Species Across all Strata: 3 (B)  
 Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>55</u>	x 2 = <u>110</u>
FAC species <u>45</u>	x 3 = <u>135</u>
FACU species <u>10</u>	x 4 = <u>40</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>110</u> (A)	<u>285</u> (B)

$$Prevalence Index = B/A = \underline{2.59}$$

### Hydrophytic Vegetation Indicators:

       Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
       Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
       Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No       

% Bare Ground in Herb Stratum 0 % Cover of Biotic Crust 0

Remarks: (Include photo numbers here or on a separate sheet.)  
 Vegetation qualifies as hydrophytic.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 1	10YR 3/ 2	100					Org	Root Mat
1 to 8	10YR 3/ 1	100					SILTY CLAY LOAM	
8 to 14	2.5YR 3/ 1	10	2.5YR 6/1	90	D	M	SILTY CLAY LOAM	
14 to 18	2.5YR 6/ 1	95					SILTY CLAY LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- ☐ Histosol (A1)  
☐ Histic Epipedon (A2)  
☐ Black Histic (A3)  
☐ Hydrogen Sulfide (A4)  
☐ Stratified Layers (A5) LRR C  
☐ 1 cm Muck (A9) LRR F D  
☒ Depleted Below Dark Surface (A11)  
☐ Thick Dark Surface (A12)  
☐ Sandy Mucky Mineral (S1)  
☐ Sandy Gleyed Matrix (S4)

- ☐ Sandy Redox (S5)  
☐ Stripped Matrix (S6)  
☐ Loamy Mucky Mineral (F1)  
☐ Loamy Gleyed Matrix (F2)  
☒ Depleted Matrix (F3)  
☐ Redox Dark Surface (F6)  
☐ Depleted Dark Surface (F7)  
☐ Redox Depressions (F8)  
☐ Vernal Pools (F9)

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)  
☐ 2 cm Muck (A10) (LRR B)  
☐ Reduced Vertic (F18)  
☐ Red Parent Material (TF2)  
☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes X No \_\_\_\_\_

## Remarks:

Soil profile meets A11 and F3 indicators.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)  
☐ High Water Table (A2)  
☒ Saturation (A3)  
☐ Water Marks (B1) (Nonriverine)  
☐ Sediment Deposits (B2) (Nonriverine)  
☐ Drift Deposits (B3) (Nonriverine)  
☐ Surface Soil Cracks (B6)  
☐ Inundation Visible on Aerial Imagery (B7)  
☐ Water-Stained Leaves (B9)  
☐ Salt Crust (B11)  
☐ Biotic Crust (B12)  
☐ Aquatic Fauna (B13)  
☐ Hydrogen Sulfide Odor (C1)  
☐ Oxidized Rhizospheres along Living Roots (C3)  
☐ Presence of Reduced Iron (C4)  
☐ Recent Iron Reduction in Tilled Soils (C6)  
☐ Thin Muck Surface (C7)  
☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)  
☐ Sediment Deposits (B2) (Riverine)  
☐ Drift Deposits (B3) (Riverine)  
☐ Drainage Patterns (B10)  
☐ Dry-Season Water Table (C2)  
☐ Crayfish Burrows (C8)  
☐ Saturation Visible on Aerial Imag.(C9)  
☐ Shallow Aquitard (D3)  
☒ FAC-Neutral Test (D5)

**Field Observations:**Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Water Table Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Saturation Present? Yes X No \_\_\_\_\_ Depth (inches): 10

(includes capillary fringe)

**Wetland Hydrology Present?** Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

Wetland hydrology indicated by saturated soils.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 5/7/2013  
 Applicant/Owner: UDOT State: UT Map/Sheet: 18 Sampling Point: 25-N-201305071413  
 Investigators: Mike Perkins Nate Nichols Section, Township, Range S 25 T 3 R 1  
 Landform (hillslope, terrace, etc.): Depression Local Relief (concave, convex, none): None Slope(%) 2  
 Subregion (LRR): LRR D Lat: 40.959387 Long: -111.892301 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Draper loam, drained, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	Is the Sampled Area within a Wetland? Yes _____ No <u>X</u>
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	
Wetland ID: _____	

Remarks:  
 Sampling point not within a wetland.

## VEGETATION— Use scientific names of plants.

<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
<u>Tree Stratum</u> (Plot size: <u>30 Ft</u> )		
<u>Elaeagnus angustifolia</u>	<u>15</u>	<u>Y</u> <u>FAC</u>
<u>15</u> =Total Cover		
<u>Shrub Stratum</u> (Plot size: <u>30 Ft</u> )		
<u>Rosa woodsii</u>	<u>5</u>	<u>Y</u> <u>FACU</u>
<u>5</u> =Total Cover		
<u>Herb Stratum</u> (Plot size: <u>30 Ft</u> )		
<u>Phalaris arundinacea</u>	<u>80</u>	<u>Y</u> <u>FACW</u>
<u>Dipsacus fullonum</u>	<u>15</u>	<u>N</u> <u>FAC</u>
<u>95</u> =Total Cover		
<u>Vine Stratum</u>		

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 2 (A)  
 Total Number of Dominant Species Across all Strata: 3 (B)  
 Percent of Dominant Species That are OBL, FACW, or FAC: 66.7% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>80</u>	x 2 = <u>160</u>
FAC species <u>30</u>	x 3 = <u>90</u>
FACU species <u>5</u>	x 4 = <u>20</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>115</u> (A)	<u>270</u> (B)

Prevalence Index = B/A= 2.35

### Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
 Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No \_\_\_\_\_

% Bare Ground in Herb Stratum 0 % Cover of Biotic Crust 0

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation qualifies as hydrophytic.



**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 12	10YR	2 / 1	100				SILTY CLAY	
12 to 18	10YR	3 / 2	100				SILTY CLAY	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)           |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)       |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)   |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)   |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input type="checkbox"/> Depleted Matrix (F3)       |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)     |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)          |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |   |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- |   |
|---|
| <input type="checkbox"/> 1 cm Muck (A9) (LRR C)     |
| <input type="checkbox"/> 2 cm Muck (A10) (LRR B)    |
| <input type="checkbox"/> Reduced Vertic (F18)       |
| <input type="checkbox"/> Red Parent Material (TF2)  |
| <input type="checkbox"/> Other (Explain in Remarks) |

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No X

## Remarks:

No hydric soil indicators observed in profile.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- |   |
|---|
| <input type="checkbox"/> Water Marks (B1) (Riverine)            |
| <input type="checkbox"/> Sediment Deposits (B2) (Riverine)      |
| <input type="checkbox"/> Drift Deposits (B3) (Riverine)         |
| <input type="checkbox"/> Drainage Patterns (B10)                |
| <input type="checkbox"/> Dry-Season Water Table (C2)            |
| <input type="checkbox"/> Crayfish Burrows (C8)                  |
| <input type="checkbox"/> Saturation Visible on Aerial Imag.(C9) |
| <input type="checkbox"/> Shallow Aquitard (D3)                  |
| <input type="checkbox"/> FAC-Neutral Test (D5)                  |

**Field Observations:**

Surface Water Present?	Yes _____ No <u>X</u>	Depth (inches): _____
Water Table Present?	Yes <u>X</u> No _____	Depth (inches): 15
Saturation Present?	Yes <u>X</u> No _____	Depth (inches): 13

(includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

Water table and saturation too deep to qualify for any indicators.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 6/26/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 17 Sampling Point: 25-N-201206260804  
 Investigators: Ron Kass Paul Dawson Section, Township, Range S 25 T 3 R 1  
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): Concave Slope(%) 0  
 Subregion (LRR): LRR D Lat: 40.9615338283 Long: -111.903367751 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Airport silt loam, 0 to 2 percent slopes NWI Classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil X, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes \_\_\_\_\_ No X  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> Wetland ID: _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks:  
 Meadow that fails as a wetland because soil did not meet hydric indicators.

## VEGETATION— Use scientific names of plants.

**Absolute % Cover** **Dominant Species** **Indicator Status**

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

Distichlis spicata	60	Y	FAC
Eleocharis palustris	10	N	OBL
Polypogon monspeliensis	5	N	FACW
	75	=Total Cover	

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across all Strata: 1 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>10</u>	x 1 = <u>10</u>
FACW species <u>5</u>	x 2 = <u>10</u>
FAC species <u>60</u>	x 3 = <u>180</u>
FACU species <u>0</u>	x 4 = <u>0</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>75</u> (A)	<u>200</u> (B)

Prevalence Index = B/A = 2.67

### Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
 Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No \_\_\_\_\_

% Bare Ground in Herb Stratum 25 % Cover of Biotic Crust \_\_\_\_\_

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation is hydrophytic.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix			Redox Features				Texture	Remarks
	Color (moist)		%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 13	10YR	4.0 / 2	100					SILTY CLAY LOAM	
13 to 18	10YR	4.0 / 2	40	10YR 5/1	60	D	M	SILTY CLAY LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- ☐ Histosol (A1)  
☐ Histic Epipedon (A2)  
☐ Black Histic (A3)  
☐ Hydrogen Sulfide (A4)  
☐ Stratified Layers (A5) LRR C  
☐ 1 cm Muck (A9) LRR F D  
☐ Depleted Below Dark Surface (A11)  
☐ Thick Dark Surface (A12)  
☐ Sandy Mucky Mineral (S1)  
☐ Sandy Gleyed Matrix (S4)

- ☐ Sandy Redox (S5)  
☐ Stripped Matrix (S6)  
☐ Loamy Mucky Mineral (F1)  
☐ Loamy Gleyed Matrix (F2)  
☐ Depleted Matrix (F3)  
☐ Redox Dark Surface (F6)  
☐ Depleted Dark Surface (F7)  
☐ Redox Depressions (F8)  
☐ Vernal Pools (F9)

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)  
☐ 2 cm Muck (A10) (LRR B)  
☐ Reduced Vertic (F18)  
☐ Red Parent Material (TF2)  
☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No X

## Remarks:

New fill over part of polygon. Soil fails to exactly meet hydric indicator, though it is close to F3.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)  
☐ High Water Table (A2)  
☐ Saturation (A3)  
☐ Water Marks (B1) (Nonriverine)  
☐ Sediment Deposits (B2) (Nonriverine)  
☐ Drift Deposits (B3) (Nonriverine)  
☐ Surface Soil Cracks (B6)  
☐ Inundation Visible on Aerial Imagery (B7)  
☐ Water-Stained Leaves (B9)  
☒ Salt Crust (B11)  
☐ Biotic Crust (B12)  
☐ Aquatic Fauna (B13)  
☐ Hydrogen Sulfide Odor (C1)  
☐ Oxidized Rhizospheres along Living Roots (C3)  
☐ Presence of Reduced Iron (C4)  
☐ Recent Iron Reduction in Tilled Soils (C6)  
☐ Thin Muck Surface (C7)  
☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)  
☐ Sediment Deposits (B2) (Riverine)  
☐ Drift Deposits (B3) (Riverine)  
☐ Drainage Patterns (B10)  
☐ Dry-Season Water Table (C2)  
☐ Crayfish Burrows (C8)  
☐ Saturation Visible on Aerial Imag.(C9)  
☐ Shallow Aquitard (D3)  
☐ FAC-Neutral Test (D5)

**Field Observations:**Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Water Table Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Saturation Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_

(includes capillary fringe)

**Wetland Hydrology Present?** Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

Salt crust indicates wetland hydrology.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 6/26/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 17 Sampling Point: 25-N-201206260825  
 Investigators: Ron Kass Paul Dawson Section, Township, Range S 25 T 3 R 1  
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): Concave Slope(%) 0  
 Subregion (LRR): LRR D Lat: 40.961761702 Long: -111.904525637 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Airport silt loam, 0 to 2 percent slopes NWI Classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland?	Yes _____ No <u>X</u>
Hydric Soil Present?	Yes _____ No <u>X</u>		
Wetland Hydrology Present?	Yes _____ No <u>X</u>		Wetland ID: _____

Remarks:  
 Upland point.

## VEGETATION— Use scientific names of plants.

Absolute  
% Cover

Dominant  
Species

Indicator  
Status

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

Hordeum marinum	45	Y	FAC
Malva neglecta	30	Y	UPL
	75	=Total Cover	

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species  
That are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant  
Species Across all Strata: 2 (B)

Percent of Dominant Species  
That are OBL, FACW, or FAC: 50.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>0</u>	x 2 = <u>0</u>
FAC species <u>45</u>	x 3 = <u>135</u>
FACU species <u>0</u>	x 4 = <u>0</u>
UPL species <u>30</u>	x 5 = <u>150</u>
Column Totals: <u>75</u> (A)	<u>285</u> (B)

Prevalence Index = B/A= 3.80

### Hydrophytic Vegetation Indicators:

\_\_\_\_\_ Rapid Test for Hydrophytic Vegetation  
 \_\_\_\_\_ Dominance Test > 50%  
 \_\_\_\_\_ Prevalence Index ≤ 3.0  
 \_\_\_\_\_ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 \_\_\_\_\_ Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes \_\_\_\_\_ No X

% Bare Ground in Herb Stratum 10 % Cover of Biotic Crust \_\_\_\_\_

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation is not hydrophytic.



**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 18	10YR	4.0 / 1		100			SILTY CLAY LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)           |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)       |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)   |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)   |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input type="checkbox"/> Depleted Matrix (F3)       |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)     |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)          |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |   |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- |   |
|---|
| <input type="checkbox"/> 1 cm Muck (A9) (LRR C)     |
| <input type="checkbox"/> 2 cm Muck (A10) (LRR B)    |
| <input type="checkbox"/> Reduced Vertic (F18)       |
| <input type="checkbox"/> Red Parent Material (TF2)  |
| <input type="checkbox"/> Other (Explain in Remarks) |

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No X

## Remarks:

Soil profile does not meet criteria for hydric indicators.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- |   |
|---|
| <input type="checkbox"/> Water Marks (B1) (Riverine)            |
| <input type="checkbox"/> Sediment Deposits (B2) (Riverine)      |
| <input type="checkbox"/> Drift Deposits (B3) (Riverine)         |
| <input type="checkbox"/> Drainage Patterns (B10)                |
| <input type="checkbox"/> Dry-Season Water Table (C2)            |
| <input type="checkbox"/> Crayfish Burrows (C8)                  |
| <input type="checkbox"/> Saturation Visible on Aerial Imag.(C9) |
| <input type="checkbox"/> Shallow Aquitard (D3)                  |
| <input type="checkbox"/> FAC-Neutral Test (D5)                  |

**Field Observations:**Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Water Table Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Saturation Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_

(includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

No wetland hydrology, upland point.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 7/23/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 18 Sampling Point: 25-N-201207231447  
 Investigators: Donovan Gross Nate Nichols Section, Township, Range S 25 T 3 R 1  
 Landform (hillslope, terrace, etc.): Basin Local Relief (concave, convex, none): Concave Slope(%) 2  
 Subregion (LRR): LRR D Lat: 40.9607986994 Long: -111.892122587 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Draper loam, drained, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland?	Yes _____ No <u>X</u>
Hydric Soil Present?	Yes _____ No <u>X</u>		
Wetland Hydrology Present?	Yes _____ No <u>X</u>		Wetland ID: _____

Remarks:  
 Upland point.

## VEGETATION— Use scientific names of plants.

**Absolute % Cover** **Dominant Species** **Indicator Status**

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

Thinopyrum intermedium	50	Y	UPL
Rosa woodsii	25	Y	FACU
Dipsacus fullonum	20	Y	FAC
	95	=Total Cover	

### Vine Stratum

## Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across all Strata: 3 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 33.3% (A/B)

## Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>0</u>	x 2 = <u>0</u>
FAC species <u>20</u>	x 3 = <u>60</u>
FACU species <u>25</u>	x 4 = <u>100</u>
UPL species <u>50</u>	x 5 = <u>250</u>
Column Totals: <u>95</u> (A)	<u>410</u> (B)

Prevalence Index = B/A= 4.32

## Hydrophytic Vegetation Indicators:

\_\_\_\_ Rapid Test for Hydrophytic Vegetation  
 \_\_\_\_ Dominance Test > 50%  
 \_\_\_\_ Prevalence Index ≤ 3.0  
 \_\_\_\_ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 \_\_\_\_ Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes \_\_\_\_\_ No X

% Bare Ground in Herb Stratum \_\_\_\_\_ % Cover of Biotic Crust \_\_\_\_\_

Remarks: (Include photo numbers here or on a separate sheet.)  
 Upland vegetation.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)           |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)       |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)   |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)   |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input type="checkbox"/> Depleted Matrix (F3)       |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)     |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)          |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |   |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)
- ☐ 2 cm Muck (A10) (LRR B)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No X**Remarks:**

Soils not evaluated since sampling point is in upland vegetation.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)
- ☐ Sediment Deposits (B2) (Riverine)
- ☐ Drift Deposits (B3) (Riverine)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

**Field Observations:**Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Water Table Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Saturation Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_

(includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

**Remarks:**

No hydrology indicators observed.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 7/23/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 18 Sampling Point: 25-N-201207231530  
 Investigators: Donovan Gross Nate Nichols Section, Township, Range S 25 T 3 R 1  
 Landform (hillslope, terrace, etc.): Basin Local Relief (concave, convex, none): Concave Slope(%) 5  
 Subregion (LRR): LRR D Lat: 40.96 Long: -111.89 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Draper loam, drained, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes \_\_\_\_\_ No X  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology X, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u>  <b>Wetland ID:</b> _____
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes _____ No <u>X</u>	

Remarks:  
 Sampled during dry time of year. Difficult to determine Hydrology. Vegetation just fails as being dominated by hydrophytes, but soils appears to be hydric.

## VEGETATION— Use scientific names of plants.

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
Phalaris arundinacea	40	Y	FACW
Thinopyrum intermedium	20	Y	UPL
Dipsacus fullonum	15	N	FAC
Rosa woodsii	15	N	FACU
Carex praegracilis	10	N	FACW
	100	=Total Cover	

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across all Strata: 2 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 50.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>50</u>	x 2 = <u>100</u>
FAC species <u>15</u>	x 3 = <u>45</u>
FACU species <u>15</u>	x 4 = <u>60</u>
UPL species <u>20</u>	x 5 = <u>100</u>
Column Totals: <u>100</u> (A)	<u>305</u> (B)

Prevalence Index = B/A= 3.05

### Hydrophytic Vegetation Indicators:

☐ Rapid Test for Hydrophytic Vegetation  
☐ Dominance Test > 50%  
☐ Prevalence Index ≤ 3.0  
☐ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
☐ Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes \_\_\_\_\_ No X

% Bare Ground in Herb Stratum \_\_\_\_\_ % Cover of Biotic Crust \_\_\_\_\_

Remarks: (Include photo numbers here or on a separate sheet.)  
 Plant community dominated by reed canary grass and wheatgrass.



**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 18	10YR	2.0 / 1	85	10YR 5/1	15	C	M	SANDY CLAY LOAM

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- ☐ Histosol (A1)  
☐ Histic Epipedon (A2)  
☐ Black Histic (A3)  
☐ Hydrogen Sulfide (A4)  
☐ Stratified Layers (A5) LRR C  
☐ 1 cm Muck (A9) LRR F D  
☐ Depleted Below Dark Surface (A11)  
☐ Thick Dark Surface (A12)  
☐ Sandy Mucky Mineral (S1)  
☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)  
☐ Stripped Matrix (S6)  
☐ Loamy Mucky Mineral (F1)  
☐ Loamy Gleyed Matrix (F2)  
☐ Depleted Matrix (F3)  
☐ Redox Dark Surface (F6)  
☒ Depleted Dark Surface (F7)  
☐ Redox Depressions (F8)  
☐ Vernal Pools (F9)

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)  
☐ 2 cm Muck (A10) (LRR B)  
☐ Reduced Vertic (F18)  
☐ Red Parent Material (TF2)  
☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes X No \_\_\_\_\_

## Remarks:

Soil passes indicator F7.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)  
☐ High Water Table (A2)  
☐ Saturation (A3)  
☐ Water Marks (B1) (Nonriverine)  
☐ Sediment Deposits (B2) (Nonriverine)  
☐ Drift Deposits (B3) (Nonriverine)  
☐ Surface Soil Cracks (B6)  
☐ Inundation Visible on Aerial Imagery (B7)  
☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)  
☐ Biotic Crust (B12)  
☐ Aquatic Fauna (B13)  
☐ Hydrogen Sulfide Odor (C1)  
☐ Oxidized Rhizospheres along Living Roots (C3)  
☐ Presence of Reduced Iron (C4)  
☐ Recent Iron Reduction in Tilled Soils (C6)  
☐ Thin Muck Surface (C7)  
☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)  
☐ Sediment Deposits (B2) (Riverine)  
☐ Drift Deposits (B3) (Riverine)  
☐ Drainage Patterns (B10)  
☐ Dry-Season Water Table (C2)  
☐ Crayfish Burrows (C8)  
☐ Saturation Visible on Aerial Imag.(C9)  
☐ Shallow Aquitard (D3)  
☒ FAC-Neutral Test (D5)

**Field Observations:**Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Water Table Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Saturation Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_

(includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

Problematic hydrology, dry season of the year but no indicators observed.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 7/24/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 18 Sampling Point: 25-N-201207240900  
 Investigators: Donovan Gross Nate Nichols Section, Township, Range S 25 T 3 R 1  
 Landform (hillslope, terrace, etc.): Basin Local Relief (concave, convex, none): None Slope(%) 10  
 Subregion (LRR): LRR D Lat: 40.9626546485 Long: -111.892299478 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Draper loam, drained, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes \_\_\_\_\_ No X (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil X, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes \_\_\_\_\_ No X  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u>  <b>Wetland ID:</b> _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	

Remarks:  
 Upland point, Non-hydrophytic veg, no soil pit

## VEGETATION— Use scientific names of plants.

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
Agropyron cristatum	25	Y	UPL
Aristida dichotoma	20	Y	FACU
Bromus tectorum	20	Y	UPL
Festuca ovina	10	N	FACU
	75	=Total Cover	

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 0 (A)  
 Total Number of Dominant Species Across all Strata: 3 (B)  
 Percent of Dominant Species That are OBL, FACW, or FAC: 0.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	<u>0</u>	x 1 =	<u>0</u>
FACW species	<u>0</u>	x 2 =	<u>0</u>
FAC species	<u>0</u>	x 3 =	<u>0</u>
FACU species	<u>30</u>	x 4 =	<u>120</u>
UPL species	<u>45</u>	x 5 =	<u>225</u>
Column Totals:	<u>75</u> (A)		<u>345</u> (B)
Prevalence Index = B/A= <u>4.60</u>			

### Hydrophytic Vegetation Indicators:

☐ Rapid Test for Hydrophytic Vegetation  
☐ Dominance Test > 50%  
☐ Prevalence Index ≤ 3.0  
☐ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
☐ Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

% Bare Ground in Herb Stratum 5 % Cover of Biotic Crust \_\_\_\_\_

**Hydrophytic Vegetation Present?** Yes \_\_\_\_\_ No X

Remarks: (Include photo numbers here or on a separate sheet.)  
 Upland vegetation.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)           |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)       |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)   |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)   |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input type="checkbox"/> Depleted Matrix (F3)       |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)     |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)          |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |   |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)  
☐ 2 cm Muck (A10) (LRR B)  
☐ Reduced Vertic (F18)  
☐ Red Parent Material (TF2)  
☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No X**Remarks:**

Fill slope with upland vegetation only. Soil pit not necessary.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)  
☐ Sediment Deposits (B2) (Riverine)  
☐ Drift Deposits (B3) (Riverine)  
☐ Drainage Patterns (B10)  
☐ Dry-Season Water Table (C2)  
☐ Crayfish Burrows (C8)  
☐ Saturation Visible on Aerial Imag.(C9)  
☐ Shallow Aquitard (D3)  
☐ FAC-Neutral Test (D5)

**Field Observations:**Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Water Table Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Saturation Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_

(includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

**Remarks:**

No hydrology, upland point.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 7/24/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 18 Sampling Point: 25-N-201207240910  
 Investigators: Donovan Gross Nate Nichols Section, Township, Range S 25 T 3 R 1  
 Landform (hillslope, terrace, etc.): Basin Local Relief (concave, convex, none): None Slope(%) 2  
 Subregion (LRR): LRR D Lat: 40.9628561977 Long: -111.89211356 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Draper loam, drained, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland?	Yes _____ No <u>X</u>
Hydric Soil Present?	Yes _____ No <u>X</u>		
Wetland Hydrology Present?	Yes _____ No <u>X</u>		Wetland ID: _____

Remarks:  
 Upland point

## VEGETATION— Use scientific names of plants.

**Absolute % Cover** **Dominant Species** **Indicator Status**

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

Festuca pratensis	40	Y	FACU
Rosa woodsii	25	Y	FACU
Dipsacus fullonum	20	N	FAC
Festuca arundinacea	15	N	FACU
Poa pratensis	10	N	FAC
	110	=Total Cover	

### Vine Stratum

## Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 2 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 0.0% (A/B)

## Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>0</u>	x 2 = <u>0</u>
FAC species <u>30</u>	x 3 = <u>90</u>
FACU species <u>80</u>	x 4 = <u>320</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>110</u> (A)	<u>410</u> (B)

Prevalence Index = B/A = 3.73

## Hydrophytic Vegetation Indicators:

☐ Rapid Test for Hydrophytic Vegetation  
☐ Dominance Test > 50%  
☐ Prevalence Index ≤ 3.0  
☐ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
☐ Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes \_\_\_\_\_ No X

% Bare Ground in Herb Stratum 0 % Cover of Biotic Crust

Remarks: (Include photo numbers here or on a separate sheet.)

Veg fails, soil pit not necessary.



**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)           |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)       |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)   |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)   |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input type="checkbox"/> Depleted Matrix (F3)       |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)     |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)          |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |   |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)  
☐ 2 cm Muck (A10) (LRR B)  
☐ Reduced Vertic (F18)  
☐ Red Parent Material (TF2)  
☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No X

## Remarks:

Upland vegetation. Soil pit not necessary.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)  
☐ Sediment Deposits (B2) (Riverine)  
☐ Drift Deposits (B3) (Riverine)  
☐ Drainage Patterns (B10)  
☐ Dry-Season Water Table (C2)  
☐ Crayfish Burrows (C8)  
☐ Saturation Visible on Aerial Imag.(C9)  
☐ Shallow Aquitard (D3)  
☐ FAC-Neutral Test (D5)

**Field Observations:**Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Water Table Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Saturation Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_

(includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

No hydrology indicators, upland point.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 7/24/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 18 Sampling Point: 25-N-201207240940  
 Investigators: Donovan Gross Nate Nichols Section, Township, Range S 25 T 3 R 1  
 Landform (hillslope, terrace, etc.): Basin Local Relief (concave, convex, none): None Slope(%) 6  
 Subregion (LRR): LRR D Lat: 40.9617552961 Long: -111.892033291 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Draper loam, drained, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland?	Yes _____ No <u>X</u>
Hydric Soil Present?	Yes _____ No <u>X</u>		
Wetland Hydrology Present?	Yes _____ No <u>X</u>		Wetland ID: _____

Remarks:  
 Upland point.

## VEGETATION— Use scientific names of plants.

**Absolute % Cover** **Dominant Species** **Indicator Status**

### Tree Stratum (Plot size: 30 Ft )

<u>Malus fusca</u>	<u>25</u>	<u>Y</u>	<u>FAC</u>
	<u>25</u>	=Total Cover	

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

<u>Convolvulus equitans</u>	<u>20</u>	<u>Y</u>	<u>FACU</u>
<u>Rosa woodsii</u>	<u>20</u>	<u>Y</u>	<u>FACU</u>
<u>Poa bulbosa</u>	<u>15</u>	<u>Y</u>	<u>UPL</u>
<u>Poa palustris</u>	<u>15</u>	<u>Y</u>	<u>FAC</u>
	<u>70</u>	=Total Cover	

### Vine Stratum

## Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 2 (A)  
 Total Number of Dominant Species Across all Strata: 5 (B)  
 Percent of Dominant Species That are OBL, FACW, or FAC: 40.0% (A/B)

## Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>0</u>	x 2 = <u>0</u>
FAC species <u>40</u>	x 3 = <u>120</u>
FACU species <u>40</u>	x 4 = <u>160</u>
UPL species <u>15</u>	x 5 = <u>75</u>
Column Totals: <u>95</u> (A)	<u>355</u> (B)
Prevalence Index = B/A = <u>3.74</u>	

## Hydrophytic Vegetation Indicators:

\_\_\_\_\_ Rapid Test for Hydrophytic Vegetation  
 \_\_\_\_\_ Dominance Test > 50%  
 \_\_\_\_\_ Prevalence Index ≤ 3.0  
 \_\_\_\_\_ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 \_\_\_\_\_ Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes \_\_\_\_\_ No X

% Bare Ground in Herb Stratum \_\_\_\_\_ % Cover of Biotic Crust \_\_\_\_\_

Remarks: (Include photo numbers here or on a separate sheet.)  
 Upland vegetation.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)           |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)       |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)   |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)   |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input type="checkbox"/> Depleted Matrix (F3)       |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)     |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)          |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |   |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)  
☐ 2 cm Muck (A10) (LRR B)  
☐ Reduced Vertic (F18)  
☐ Red Parent Material (TF2)  
☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No X**Remarks:**

Soils not evaluated since sampling point is in upland vegetation.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)  
☐ Sediment Deposits (B2) (Riverine)  
☐ Drift Deposits (B3) (Riverine)  
☐ Drainage Patterns (B10)  
☐ Dry-Season Water Table (C2)  
☐ Crayfish Burrows (C8)  
☐ Saturation Visible on Aerial Imag.(C9)  
☐ Shallow Aquitard (D3)  
☐ FAC-Neutral Test (D5)

**Field Observations:**Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Water Table Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Saturation Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_

(includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

**Remarks:**

No indicators.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 7/24/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 18 Sampling Point: 25-N-201207241243  
 Investigators: Donovan Gross Nate Nichols Section, Township, Range S 25 T 3 R 1  
 Landform (hillslope, terrace, etc.): Basin Local Relief (concave, convex, none): Concave Slope(%) 1  
 Subregion (LRR): LRR D Lat: 40.966938534 Long: -111.892941526 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Draper loam, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland?	Yes _____ No <u>X</u>
Hydric Soil Present?	Yes _____ No <u>X</u>		
Wetland Hydrology Present?	Yes _____ No <u>X</u>		Wetland ID: _____

Remarks:  
 Very dry. Almost no new growth of fescue. Teasel is from last year.

## VEGETATION— Use scientific names of plants.

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
Poa bulbosa	35	Y	UPL
Festuca pratensis	25	Y	FACU
Thinopyrum ponticum	15	N	UPL
Dipsacus fullonum	5	N	FAC
	80	=Total Cover	

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species  
That are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant  
Species Across all Strata: 2 (B)

Percent of Dominant Species  
That are OBL, FACW, or FAC: 0.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	<u>0</u>	x 1 =	<u>0</u>
FACW species	<u>0</u>	x 2 =	<u>0</u>
FAC species	<u>5</u>	x 3 =	<u>15</u>
FACU species	<u>25</u>	x 4 =	<u>100</u>
UPL species	<u>50</u>	x 5 =	<u>250</u>
Column Totals:	<u>80</u> (A)		<u>365</u> (B)

Prevalence Index = B/A= 4.56

### Hydrophytic Vegetation Indicators:

\_\_\_\_ Rapid Test for Hydrophytic Vegetation  
 \_\_\_\_ Dominance Test > 50%  
 \_\_\_\_ Prevalence Index ≤ 3.0  
 \_\_\_\_ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 \_\_\_\_ Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

% Bare Ground in Herb Stratum 0 % Cover of Biotic Crust \_\_\_\_\_

Hydrophytic  
Vegetation Present? Yes \_\_\_\_\_ No X

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation is upland-dominant.



**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)           |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)       |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)   |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)   |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input type="checkbox"/> Depleted Matrix (F3)       |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)     |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)          |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |   |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)  
☐ 2 cm Muck (A10) (LRR B)  
☐ Reduced Vertic (F18)  
☐ Red Parent Material (TF2)  
☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No X**Remarks:**

Soils not evaluated since sampling point is in upland vegetation.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)  
☐ Sediment Deposits (B2) (Riverine)  
☐ Drift Deposits (B3) (Riverine)  
☐ Drainage Patterns (B10)  
☐ Dry-Season Water Table (C2)  
☐ Crayfish Burrows (C8)  
☐ Saturation Visible on Aerial Imag.(C9)  
☐ Shallow Aquitard (D3)  
☐ FAC-Neutral Test (D5)

**Field Observations:**Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Water Table Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Saturation Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_

(includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

**Remarks:**

No indicators.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 7/24/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 18 Sampling Point: 25-N-201207241256  
 Investigators: Donovan Gross Nate Nichols Section, Township, Range S 25 T 3 R 1  
 Landform (hillslope, terrace, etc.): Basin Local Relief (concave, convex, none): Convex Slope(%) 3  
 Subregion (LRR): LRR D Lat: 40.9670658197 Long: -111.892753478 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Draper loam, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> <b>Wetland ID:</b> _____
Hydric Soil Present?	Yes _____ No <u>X</u>	
Wetland Hydrology Present?	Yes _____ No <u>X</u>	

Remarks:  
 Upland point.

## VEGETATION— Use scientific names of plants.

<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
<u>90</u>	<u>Y</u>	<u>UPL</u>
<u>90</u>	=Total Cover	

Tree Stratum

Shrub Stratum

Herb Stratum (Plot size: 30 Ft )

upland grass sp.

Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 0 (A)  
 Total Number of Dominant Species Across all Strata: 1 (B)  
 Percent of Dominant Species That are OBL, FACW, or FAC: 0.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	<u>0</u>	x 1 =	<u>0</u>
FACW species	<u>0</u>	x 2 =	<u>0</u>
FAC species	<u>0</u>	x 3 =	<u>0</u>
FACU species	<u>0</u>	x 4 =	<u>0</u>
UPL species	<u>90</u>	x 5 =	<u>450</u>
Column Totals:	<u>90</u> (A)		<u>450</u> (B)
Prevalence Index = B/A=		<u>5.00</u>	

### Hydrophytic Vegetation Indicators:

☐ Rapid Test for Hydrophytic Vegetation  
☐ Dominance Test > 50%  
☐ Prevalence Index ≤ 3.0  
☐ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
☐ Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes \_\_\_\_\_ No X

% Bare Ground in Herb Stratum 10 % Cover of Biotic Crust \_\_\_\_\_

Remarks: (Include photo numbers here or on a separate sheet.)  
 Unidentified grass in upland landscape is stunted, dry, and not flowering.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 12	10YR	3.0 / 1		0			SILTY CLAY LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)           |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)       |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)   |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)   |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input type="checkbox"/> Depleted Matrix (F3)       |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)     |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)          |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |   |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- |   |
|---|
| <input type="checkbox"/> 1 cm Muck (A9) (LRR C)     |
| <input type="checkbox"/> 2 cm Muck (A10) (LRR B)    |
| <input type="checkbox"/> Reduced Vertic (F18)       |
| <input type="checkbox"/> Red Parent Material (TF2)  |
| <input type="checkbox"/> Other (Explain in Remarks) |

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No X

## Remarks:

No hydric indicators observed in soil profile. Very hard and dry.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- |   |
|---|
| <input type="checkbox"/> Water Marks (B1) (Riverine)            |
| <input type="checkbox"/> Sediment Deposits (B2) (Riverine)      |
| <input type="checkbox"/> Drift Deposits (B3) (Riverine)         |
| <input type="checkbox"/> Drainage Patterns (B10)                |
| <input type="checkbox"/> Dry-Season Water Table (C2)            |
| <input type="checkbox"/> Crayfish Burrows (C8)                  |
| <input type="checkbox"/> Saturation Visible on Aerial Imag.(C9) |
| <input type="checkbox"/> Shallow Aquitard (D3)                  |
| <input type="checkbox"/> FAC-Neutral Test (D5)                  |

**Field Observations:**Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Water Table Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Saturation Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_

(includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

Very dry.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 7/24/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 18 Sampling Point: 25-N-201207241313  
 Investigators: Donovan Gross Nate Nichols Section, Township, Range S 25 T 3 R 1  
 Landform (hillslope, terrace, etc.): Basin Local Relief (concave, convex, none): Concave Slope(%) 3  
 Subregion (LRR): LRR D Lat: 40.9682119572 Long: -111.893427144 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Draper loam, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> Wetland ID: _____
Hydric Soil Present?	Yes _____ No <u>X</u>	
Wetland Hydrology Present?	Yes _____ No <u>X</u>	
Remarks: Upland point.		

## VEGETATION— Use scientific names of plants.

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
Melilotus officinalis	30	Y	FACU
Festuca ovina	20	Y	FACU
Grindelia squarrosa	20	Y	FACU
Thinopyrum ponticum	5	N	UPL
	75	=Total Cover	

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 0 (A)  
 Total Number of Dominant Species Across all Strata: 3 (B)  
 Percent of Dominant Species That are OBL, FACW, or FAC: 0.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	<u>0</u>	x 1 =	<u>0</u>
FACW species	<u>0</u>	x 2 =	<u>0</u>
FAC species	<u>0</u>	x 3 =	<u>0</u>
FACU species	<u>70</u>	x 4 =	<u>280</u>
UPL species	<u>5</u>	x 5 =	<u>25</u>
Column Totals:	<u>75</u> (A)		<u>305</u> (B)

Prevalence Index = B/A= 4.07

### Hydrophytic Vegetation Indicators:

☐ Rapid Test for Hydrophytic Vegetation  
☐ Dominance Test > 50%  
☐ Prevalence Index ≤ 3.0  
☐ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
☐ Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes \_\_\_\_\_ No X

% Bare Ground in Herb Stratum \_\_\_\_\_ % Cover of Biotic Crust \_\_\_\_\_

Remarks: (Include photo numbers here or on a separate sheet.)

Upland vegetation.



**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)           |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)       |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)   |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)   |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input type="checkbox"/> Depleted Matrix (F3)       |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)     |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)          |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |   |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)
- ☐ 2 cm Muck (A10) (LRR B)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No X**Remarks:**

Soils not evaluated since sampling point is in upland vegetation.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)
- ☐ Sediment Deposits (B2) (Riverine)
- ☐ Drift Deposits (B3) (Riverine)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

**Field Observations:**Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Water Table Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Saturation Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_

(includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

**Remarks:**

No hydrology present.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 7/24/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 18 Sampling Point: 25-N-201207241320  
 Investigators: Donovan Gross Nate Nichols Section, Township, Range S 25 T 3 R 1  
 Landform (hillslope, terrace, etc.): Basin Local Relief (concave, convex, none): Concave Slope(%) 3  
 Subregion (LRR): LRR D Lat: 40.9688081396 Long: -111.893661289 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Draper loam, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> <b>Wetland ID:</b> _____
Hydric Soil Present?	Yes _____ No <u>X</u>	
Wetland Hydrology Present?	Yes _____ No <u>X</u>	

Remarks:  
 Very upland point

## VEGETATION— Use scientific names of plants.

**Absolute % Cover** **Dominant Species** **Indicator Status**

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

<u>Festuca ovina</u>	<u>40</u>	<u>Y</u>	<u>FACU</u>
<u>Thinopyrum ponticum</u>	<u>20</u>	<u>Y</u>	<u>UPL</u>
<u>Medicago sativa</u>	<u>15</u>	<u>N</u>	<u>UPL</u>
<u>Convolvulus equitans</u>	<u>5</u>	<u>N</u>	<u>FACU</u>
	<u>80</u>	=Total Cover	

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 2 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 0.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>0</u>	x 2 = <u>0</u>
FAC species <u>0</u>	x 3 = <u>0</u>
FACU species <u>45</u>	x 4 = <u>180</u>
UPL species <u>35</u>	x 5 = <u>175</u>
Column Totals: <u>80</u> (A)	<u>355</u> (B)

Prevalence Index = B/A = 4.44

### Hydrophytic Vegetation Indicators:

☐ Rapid Test for Hydrophytic Vegetation  
☐ Dominance Test > 50%  
☐ Prevalence Index ≤ 3.0  
☐ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
☐ Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes \_\_\_\_\_ No X

% Bare Ground in Herb Stratum \_\_\_\_\_ % Cover of Biotic Crust \_\_\_\_\_

Remarks: (Include photo numbers here or on a separate sheet.)  
 Upland vegetation.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)           |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)       |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)   |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)   |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input type="checkbox"/> Depleted Matrix (F3)       |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)     |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)          |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |   |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)  
☐ 2 cm Muck (A10) (LRR B)  
☐ Reduced Vertic (F18)  
☐ Red Parent Material (TF2)  
☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No X**Remarks:**

Soils not evaluated since sampling point is in upland vegetation.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)  
☐ Sediment Deposits (B2) (Riverine)  
☐ Drift Deposits (B3) (Riverine)  
☐ Drainage Patterns (B10)  
☐ Dry-Season Water Table (C2)  
☐ Crayfish Burrows (C8)  
☐ Saturation Visible on Aerial Imag.(C9)  
☐ Shallow Aquitard (D3)  
☐ FAC-Neutral Test (D5)

**Field Observations:**Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Water Table Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Saturation Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_

(includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

**Remarks:**

No hydrology observed.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 7/24/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 18 Sampling Point: 25-W-201207240840  
 Investigators: Donovan Gross Nate Nichols Section, Township, Range S 25 T 3 R 1  
 Landform (hillslope, terrace, etc.): Basin Local Relief (concave, convex, none): Concave Slope(%) 2  
 Subregion (LRR): LRR D Lat: 40.9627176759 Long: -111.892147798 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Draper loam, drained, 0 to 1 percent slopes NWI Classification: PEMA  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No        (If No, explain in Remarks)  
 Are Vegetation       , Soil       , Hydrology       , significantly disturbed? Are "Normal Circumstances" present? Yes        No X  
 Are Vegetation       , Soil       , Hydrology X, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No <u>      </u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No <u>      </u> Wetland ID: <u>25-W-39</u>
Hydric Soil Present? Yes <u>X</u> No <u>      </u>	
Wetland Hydrology Present? Yes <u>X</u> No <u>      </u>	

Remarks:  
 Wetland pit

## VEGETATION— Use scientific names of plants.

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
Dipsacus fullonum	20	Y	FAC
Carex nebrascensis	15	Y	OBL
Phalaris arundinacea	15	Y	FACW
Eleocharis palustris	10	N	OBL
Festuca pratensis	10	N	FACU
Convolvulus equitans	5	N	FACU
Juncus confusus	5	N	FAC
Poa pratensis	5	N	FAC
	85	=Total Cover	

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 3 (A)  
 Total Number of Dominant Species Across all Strata: 3 (B)  
 Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>25</u>	x 1 = <u>25</u>
FACW species <u>15</u>	x 2 = <u>30</u>
FAC species <u>30</u>	x 3 = <u>90</u>
FACU species <u>15</u>	x 4 = <u>60</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>85</u> (A)	<u>205</u> (B)

Prevalence Index = B/A = 2.41

### Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
 Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
X Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No       

% Bare Ground in Herb Stratum 0 % Cover of Biotic Crust

Remarks: (Include photo numbers here or on a separate sheet.)  
 veg is more wet to center of polygom, eg c. nebraska and phalaris.



**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix			Redox Features				Texture	Remarks
	Color (moist)		%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 14	10YR	2.0/ 1	90	10yr 4/4	10	C	M	SILTY CLAY LOAM	
14 to 18	10YR	3.0/ 1	80	10yr 4/4	15	C	M	SANDY CLAY	and 2.5y 6/2 5% C M

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- ☐ Histosol (A1)  
☐ Histic Epipedon (A2)  
☐ Black Histic (A3)  
☐ Hydrogen Sulfide (A4)  
☐ Stratified Layers (A5) LRR C  
☐ 1 cm Muck (A9) LRR F D  
☐ Depleted Below Dark Surface (A11)  
☐ Thick Dark Surface (A12)  
☐ Sandy Mucky Mineral (S1)  
☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)  
☐ Stripped Matrix (S6)  
☐ Loamy Mucky Mineral (F1)  
☐ Loamy Gleyed Matrix (F2)  
☐ Depleted Matrix (F3)  
☒ Redox Dark Surface (F6)  
☐ Depleted Dark Surface (F7)  
☐ Redox Depressions (F8)  
☐ Vernal Pools (F9)

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)  
☐ 2 cm Muck (A10) (LRR B)  
☐ Reduced Vertic (F18)  
☐ Red Parent Material (TF2)  
☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes X No \_\_\_\_\_

## Remarks:

Soil is positive for indicator F6

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)  
☐ High Water Table (A2)  
☐ Saturation (A3)  
☐ Water Marks (B1) (Nonriverine)  
☐ Sediment Deposits (B2) (Nonriverine)  
☐ Drift Deposits (B3) (Nonriverine)  
☐ Surface Soil Cracks (B6)  
☐ Inundation Visible on Aerial Imagery (B7)  
☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)  
☐ Biotic Crust (B12)  
☐ Aquatic Fauna (B13)  
☐ Hydrogen Sulfide Odor (C1)  
☒ Oxidized Rhizospheres along Living Roots (C3)  
☐ Presence of Reduced Iron (C4)  
☐ Recent Iron Reduction in Tilled Soils (C6)  
☐ Thin Muck Surface (C7)  
☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)  
☐ Sediment Deposits (B2) (Riverine)  
☐ Drift Deposits (B3) (Riverine)  
☐ Drainage Patterns (B10)  
☐ Dry-Season Water Table (C2)  
☐ Crayfish Burrows (C8)  
☐ Saturation Visible on Aerial Imag.(C9)  
☐ Shallow Aquitard (D3)  
☒ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_  
 Water Table Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_  
 Saturation Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_  
 (includes capillary fringe)

**Wetland Hydrology Present?** Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

problematic season for hydro, soil has indicators

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 7/24/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 18 Sampling Point: 25-W-201207241134  
 Investigators: Donovan Gross Nate Nichols Section, Township, Range S 25 T 3 R 1  
 Landform (hillslope, terrace, etc.): Basin Local Relief (concave, convex, none): Concave Slope(%) 3  
 Subregion (LRR): LRR D Lat: 40.9640077145 Long: -111.892130674 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Draper loam, drained, 0 to 1 percent slopes NWI Classification: PEMA  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No        (If No, explain in Remarks)  
 Are Vegetation       , Soil       , Hydrology       , significantly disturbed? Are "Normal Circumstances" present? Yes X No         
 Are Vegetation       , Soil       , Hydrology       , naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No <u>      </u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No <u>      </u> Wetland ID: <u>25-W-35</u>
Hydric Soil Present? Yes <u>X</u> No <u>      </u>	
Wetland Hydrology Present? Yes <u>X</u> No <u>      </u>	
Remarks: Wetland pit.	

## VEGETATION— Use scientific names of plants.

<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
<u>40</u>	<u>Y</u>	<u>FACW</u>
<u>20</u>	<u>Y</u>	<u>FAC</u>
<u>15</u>	<u>N</u>	<u>OBL</u>
<u>5</u>	<u>N</u>	<u>FAC</u>
<u>2</u>	<u>N</u>	<u>FACU</u>
<u>82</u>	<u>=Total Cover</u>	

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

<u>Phalaris arundinacea</u>	<u>40</u>	<u>Y</u>	<u>FACW</u>
<u>Elymus repens</u>	<u>20</u>	<u>Y</u>	<u>FAC</u>
<u>Carex nebrascensis</u>	<u>15</u>	<u>N</u>	<u>OBL</u>
<u>Dipsacus fullonum</u>	<u>5</u>	<u>N</u>	<u>FAC</u>
<u>Lactuca serriola</u>	<u>2</u>	<u>N</u>	<u>FACU</u>

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 2 (A)  
 Total Number of Dominant Species Across all Strata: 2 (B)  
 Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>15</u>	x 1 = <u>15</u>
FACW species <u>40</u>	x 2 = <u>80</u>
FAC species <u>25</u>	x 3 = <u>75</u>
FACU species <u>2</u>	x 4 = <u>8</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>82</u> (A)	<u>178</u> (B)

Prevalence Index = B/A = 2.17

### Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
       Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
       Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No       

% Bare Ground in Herb Stratum 5 % Cover of Biotic Crust       

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation is hydrophytic. Evidence of herbicide use.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)**

Depth (inches)	Matrix			Redox Features				Texture	Remarks
	Color (moist)		%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 11	10YR	2.0 / 1	95	10YR 4/4	2	C	M	SANDY CLAY	
11 to 18	10YR	3.0 / 1	70	10YR 4/4	30	C	M	SANDY CLAY	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- ☐ Histosol (A1)  
☐ Histic Epipedon (A2)  
☐ Black Histic (A3)  
☐ Hydrogen Sulfide (A4)  
☐ Stratified Layers (A5) LRR C  
☐ 1 cm Muck (A9) LRR F D  
☐ Depleted Below Dark Surface (A11)  
☐ Thick Dark Surface (A12)  
☐ Sandy Mucky Mineral (S1)  
☐ Sandy Gleyed Matrix (S4)

- ☐ Sandy Redox (S5)  
☐ Stripped Matrix (S6)  
☐ Loamy Mucky Mineral (F1)  
☐ Loamy Gleyed Matrix (F2)  
☐ Depleted Matrix (F3)  
☒ Redox Dark Surface (F6)  
☐ Depleted Dark Surface (F7)  
☐ Redox Depressions (F8)  
☐ Vernal Pools (F9)

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)  
☐ 2 cm Muck (A10) (LRR B)  
☐ Reduced Vertic (F18)  
☐ Red Parent Material (TF2)  
☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes   X   No       

Remarks:  
Soil profile meets F6 indicator.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)  
☒ High Water Table (A2)  
☒ Saturation (A3)  
☐ Water Marks (B1) (Nonriverine)  
☐ Sediment Deposits (B2) (Nonriverine)  
☐ Drift Deposits (B3) (Nonriverine)  
☐ Surface Soil Cracks (B6)  
☐ Inundation Visible on Aerial Imagery (B7)  
☐ Water-Stained Leaves (B9)  
☐ Salt Crust (B11)  
☐ Biotic Crust (B12)  
☐ Aquatic Fauna (B13)  
☐ Hydrogen Sulfide Odor (C1)  
☐ Oxidized Rhizospheres along Living Roots (C3)  
☐ Presence of Reduced Iron (C4)  
☐ Recent Iron Reduction in Tilled Soils (C6)  
☐ Thin Muck Surface (C7)  
☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)  
☐ Sediment Deposits (B2) (Riverine)  
☐ Drift Deposits (B3) (Riverine)  
☐ Drainage Patterns (B10)  
☐ Dry-Season Water Table (C2)  
☐ Crayfish Burrows (C8)  
☐ Saturation Visible on Aerial Imag.(C9)  
☐ Shallow Aquitard (D3)  
☒ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present? Yes        No   X   Depth (inches):        --  
Water Table Present? Yes   X   No        Depth (inches):        8  
Saturation Present? Yes   X   No        Depth (inches):        4  
(includes capillary fringe)

**Wetland Hydrology Present?** Yes   X   No       

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:  
Wetland hydrology present.





## SOIL

Sampling Point: 26-N-201305071413

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-12	10YR 2/1	100					SiSi	
12-20	10YR 3/2	100					SiCl	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

☐ Histosol (A1)  
☐ Histic Epipedon (A2)  
☐ Black Histic (A3)  
☐ Hydrogen Sulfide (A4)  
☐ Stratified Layers (A5) (**LRR C**)  
☐ 1 cm Muck (A9) (**LRR D**)  
☐ Depleted Below Dark Surface (A11)  
☐ Thick Dark Surface (A12)  
☐ Sandy Mucky Mineral (S1)  
☐ Sandy Gleyed Matrix (S4)

☐ Sandy Redox (S5)  
☐ Stripped Matrix (S6)  
☐ Loamy Mucky Mineral (F1)  
☐ Loamy Gleyed Matrix (F2)  
☐ Depleted Matrix (F3)  
☐ Redox Dark Surface (F6)  
☐ Depleted Dark Surface (F7)  
☐ Redox Depressions (F8)  
☐ Vernal Pools (F9)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

☐ 1 cm Muck (A9) (**LRR C**)  
☐ 2 cm Muck (A10) (**LRR B**)  
☐ Reduced Vertic (F18)  
☐ Red Parent Material (TF2)  
☐ Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No ☒

Remarks:

No Hydric soil indicators.

## HYDROLOGY

**Wetland Hydrology Indicators:**

**Primary Indicators (minimum of one required; check all that apply)**

☐ Surface Water (A1)  
☐ High Water Table (A2)  
☐ Saturation (A3)  
☐ Water Marks (B1) (**Nonriverine**)  
☐ Sediment Deposits (B2) (**Nonriverine**)  
☐ Drift Deposits (B3) (**Nonriverine**)  
☐ Surface Soil Cracks (B6)  
☐ Inundation Visible on Aerial Imagery (B7)  
☐ Water-Stained Leaves (B9)

☐ Salt Crust (B11)  
☐ Biotic Crust (B12)  
☐ Aquatic Invertebrates (B13)  
☐ Hydrogen Sulfide Odor (C1)  
☐ Oxidized Rhizospheres along Living Roots (C3)  
☐ Presence of Reduced Iron (C4)  
☐ Recent Iron Reduction in Tilled Soils (C6)  
☐ Thin Muck Surface (C7)  
☐ Other (Explain in Remarks)

**Secondary Indicators (2 or more required)**

☐ Water Marks (B1) (**Riverine**)  
☐ Sediment Deposits (B2) (**Riverine**)  
☐ Drift Deposits (B3) (**Riverine**)  
☐ Drainage Patterns (B10)  
☐ Dry-Season Water Table (C2)  
☐ Crayfish Burrows (C8)  
☐ Saturation Visible on Aerial Imagery (C9)  
☐ Shallow Aquitard (D3)  
☐ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present? Yes \_\_\_\_\_ No ☒ Depth (inches): \_\_\_\_\_

Water Table Present? Yes ☒ No \_\_\_\_\_ Depth (inches): 15

Saturation Present? Yes ☒ No \_\_\_\_\_ Depth (inches): 13  
(includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No qualifying Hydrology.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 6/13/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 25 Sampling Point: 26-W-201305071506  
 Investigators: Nate Nichols Mike Perkins Section, Township, Range S 16 T 3 R 1  
 Landform (hillslope, terrace, etc.): Depression Local Relief (concave, convex, none): None Slope(%) 2  
 Subregion (LRR): LRR D Lat: 40.962029 Long: -111.892102 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Draper loam, drained, 0 to 1 percent slopes NWI Classification: PEMC  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No        (If No, explain in Remarks)  
 Are Vegetation       , Soil       , Hydrology       , significantly disturbed? Are "Normal Circumstances" present? Yes X No         
 Are Vegetation       , Soil       , Hydrology       , naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No <u>      </u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>      </u> No <u>X</u> Wetland ID: <u>25-IW-39</u>
Hydric Soil Present? Yes <u>X</u> No <u>      </u>	
Wetland Hydrology Present? Yes <u>X</u> No <u>      </u>	

Remarks:  
 Sampling point confirms area is a wetland.

<b>VEGETATION</b> — Use scientific names of plants. <u>Tree Stratum</u> <u>Shrub Stratum</u> <u>Herb Stratum</u> (Plot size: <u>30 Ft</u> ) <table border="1"> <tr> <td>Carex nebrascensis</td> <td>30</td> <td>Y</td> <td>OBL</td> </tr> <tr> <td>Phalaris arundinacea</td> <td>20</td> <td>Y</td> <td>FACW</td> </tr> <tr> <td>Dipsacus fullonum</td> <td>5</td> <td>N</td> <td>FAC</td> </tr> <tr> <td>Juncus arcticus</td> <td>5</td> <td>N</td> <td>FACW</td> </tr> <tr> <td></td> <td>60</td> <td colspan="2">=Total Cover</td> </tr> </table> <u>Vine Stratum</u>	Carex nebrascensis	30	Y	OBL	Phalaris arundinacea	20	Y	FACW	Dipsacus fullonum	5	N	FAC	Juncus arcticus	5	N	FACW		60	=Total Cover		<b>Dominance Test Worksheet:</b> Number of Dominant Species That are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across all Strata: <u>2</u> (B) Percent of Dominant Species That are OBL, FACW, or FAC: <u>100.0%</u> (A/B)  <b>Prevalence Index Worksheet:</b> <table border="1"> <tr> <th>Total % Cover of:</th> <th>Multiply by:</th> </tr> <tr> <td>OBL species <u>30</u></td> <td>x 1 = <u>30</u></td> </tr> <tr> <td>FACW species <u>25</u></td> <td>x 2 = <u>50</u></td> </tr> <tr> <td>FAC species <u>5</u></td> <td>x 3 = <u>15</u></td> </tr> <tr> <td>FACU species <u>0</u></td> <td>x 4 = <u>0</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>60</u> (A)</td> <td><u>95</u> (B)</td> </tr> </table> <i>Prevalence Index = B/A=</i> <u>1.58</u>	Total % Cover of:	Multiply by:	OBL species <u>30</u>	x 1 = <u>30</u>	FACW species <u>25</u>	x 2 = <u>50</u>	FAC species <u>5</u>	x 3 = <u>15</u>	FACU species <u>0</u>	x 4 = <u>0</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>60</u> (A)	<u>95</u> (B)
Carex nebrascensis	30	Y	OBL																																
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FACU species <u>0</u>	x 4 = <u>0</u>																																		
UPL species <u>0</u>	x 5 = <u>0</u>																																		
Column Totals: <u>60</u> (A)	<u>95</u> (B)																																		

% Bare Ground in Herb Stratum

% Cover of Biotic Crust

Remarks: (Include photo numbers here or on a separate sheet.)  
 Vegetation is hydrophytic.

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 2	10YR 2 / 1	100					CLAY LOAM	
2 to 13	10YR 2 / 1	100	10 YR 4/8	5	C	M	SILTY CLAY LOAM	
13 to	/							cobble

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators:**

☐ Histosol (A1)☐ Histic Epipedon (A2)☐ Black Histic (A3)☐ Hydrogen Sulfide (A4)☐ Stratified Layers (A5) LRR C☐ 1 cm Muck (A9) LRR F D☐ Depleted Below Dark Surface (A11)☐ Thick Dark Surface (A12)☐ Sandy Mucky Mineral (S1)☐ Sandy Gleyed Matrix (S4)☐ Sandy Redox (S5)☐ Stripped Matrix (S6)☐ Loamy Mucky Mineral (F1)☐ Loamy Gleyed Matrix (F2)☐ Depleted Matrix (F3)☒ Redox Dark Surface (F6)☐ Depleted Dark Surface (F7)☐ Redox Depressions (F8)☐ Vernal Pools (F9)

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

☐ 1 cm Muck (A9) (LRR C)☐ 2 cm Muck (A10) (LRR B)☐ Reduced Vertic (F18)☐ Red Parent Material (TF2)☐ Other (Explain in Remarks)

☐ **Restrictive Layer (if observed):**

Type: Depth (inches):

**Hydric Soil Present?** Yes ☒ No ☐

Remarks:

Soil profile meets F6 indicator.

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

HYDROLOGY

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

☐ Surface Water (A1)☒ High Water Table (A2)☒ Saturation (A3)☐ Water Marks (B1) (Nonriverine)☐ Sediment Deposits (B2) (Nonriverine)☐ Drift Deposits (B3) (Nonriverine)☐ Surface Soil Cracks (B6)☐ Inundation Visible on Aerial Imagery (B7)☐ Water-Stained Leaves (B9)☐ Salt Crust (B11)☐ Biotic Crust (B12)☐ Aquatic Fauna (B13)☐ Hydrogen Sulfide Odor (C1)☐ Oxidized Rhizospheres along Living Roots (C3)☐ Presence of Reduced Iron (C4)☐ Recent Iron Reduction in Tilled Soils (C6)☐ Thin Muck Surface (C7)☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

☐ Water Marks (B1) (Riverine)☐ Sediment Deposits (B2) (Riverine)☐ Drift Deposits (B3) (Riverine)☐ Drainage Patterns (B10)☐ Dry-Season Water Table (C2)☐ Crayfish Burrows (C8)☐ Saturation Visible on Aerial Imag.(C9)☐ Shallow Aquitard (D3)☒ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present? Yes ☐ No ☒ Depth (inches):

Water Table Present? Yes ☒ No ☐ Depth (inches): 

11

Saturation Present? Yes ☒ No ☐ Depth (inches): 

7

(includes capillary fringe)

**Wetland Hydrology Present?** Yes ☒ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Wetland hydrology present.

US Army Corps of Engineers

HDR

Arid West – Version 2.0

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 6/25/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 15 Sampling Point: 24-N-201206251115  
 Investigators: Ron Kass Paul Dawson Section, Township, Range S 26 T 3 R 1  
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): Concave Slope(%) 0  
 Subregion (LRR): LRR D Lat: 40.9676771745 Long: -111.92242404 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Ironton-Draper complex, 0 to 3 percent slopes NWI Classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology X, significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> Wetland ID: _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	

Remarks:  
 currently being filled. changed land use, no irrigation, no hydrology no soils.

## VEGETATION— Use scientific names of plants.

**Absolute % Cover** **Dominant Species** **Indicator Status**

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

Lepidium perfoliatum	20	Y	FACU
Distichlis spicata	15	Y	FAC
Grindelia squarrosa	15	Y	FACU
Bromus inermis	10	N	FACU
Cardaria draba	10	N	UPL
Hordeum jubatum	5	N	FAC
	75	=Total Cover	

### Vine Stratum

## Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across all Strata: 3 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 33.3% (A/B)

## Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>0</u>	x 2 = <u>0</u>
FAC species <u>20</u>	x 3 = <u>60</u>
FACU species <u>45</u>	x 4 = <u>180</u>
UPL species <u>10</u>	x 5 = <u>50</u>
Column Totals: <u>75</u> (A)	<u>290</u> (B)

Prevalence Index = B/A = 3.87

## Hydrophytic Vegetation Indicators:

☐ Rapid Test for Hydrophytic Vegetation  
☐ Dominance Test > 50%  
☐ Prevalence Index ≤ 3.0  
☐ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
☐ Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes \_\_\_\_\_ No X

% Bare Ground in Herb Stratum \_\_\_\_\_ % Cover of Biotic Crust \_\_\_\_\_

Remarks: (Include photo numbers here or on a separate sheet.)  
 vegetation in transition.



**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 18	10YR	4.0 / 2		100			SILT LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)           |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)       |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)   |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)   |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input type="checkbox"/> Depleted Matrix (F3)       |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)     |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)          |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |   |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- |   |
|---|
| <input type="checkbox"/> 1 cm Muck (A9) (LRR C)     |
| <input type="checkbox"/> 2 cm Muck (A10) (LRR B)    |
| <input type="checkbox"/> Reduced Vertic (F18)       |
| <input type="checkbox"/> Red Parent Material (TF2)  |
| <input type="checkbox"/> Other (Explain in Remarks) |

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No X

## Remarks:

Soil fails to indicate hydric conditions.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- |   |
|---|
| <input type="checkbox"/> Water Marks (B1) (Riverine)            |
| <input type="checkbox"/> Sediment Deposits (B2) (Riverine)      |
| <input type="checkbox"/> Drift Deposits (B3) (Riverine)         |
| <input type="checkbox"/> Drainage Patterns (B10)                |
| <input type="checkbox"/> Dry-Season Water Table (C2)            |
| <input type="checkbox"/> Crayfish Burrows (C8)                  |
| <input type="checkbox"/> Saturation Visible on Aerial Imag.(C9) |
| <input type="checkbox"/> Shallow Aquitard (D3)                  |
| <input type="checkbox"/> FAC-Neutral Test (D5)                  |

**Field Observations:**Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Water Table Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Saturation Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_

(includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

No hydrology observed.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 6/25/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 15 Sampling Point: 24-N-201206251155  
 Investigators: Ron Kass Paul Dawson Section, Township, Range S 26 T 3 R 1  
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): Concave Slope(%) 1  
 Subregion (LRR): LRR D Lat: 40.9679134623 Long: -111.924236897 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Chance-Irton complex, 0 to 3 percent slopes NWI Classification: \_\_\_\_\_  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> Wetland ID: _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	

Remarks:  
 Adjacent to drainage ditch; no hydrology due to no irrigation

## VEGETATION— Use scientific names of plants.

<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
50	Y	FACW
40	Y	FAC
90	=Total Cover	

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

Phalaris arundinacea	50	Y	FACW
Hordeum jubatum	40	Y	FAC

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across all Strata: 2 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>50</u>	x 2 = <u>100</u>
FAC species <u>40</u>	x 3 = <u>120</u>
FACU species <u>0</u>	x 4 = <u>0</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>90</u> (A)	<u>220</u> (B)

Prevalence Index = B/A = 2.44

### Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
 Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No \_\_\_\_\_

% Bare Ground in Herb Stratum \_\_\_\_\_ % Cover of Biotic Crust \_\_\_\_\_

Remarks: (Include photo numbers here or on a separate sheet.)  
 vegetation in transition

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 13	10YR	3.0 / 2	100				SILTY CLAY LOAM	
13 to 18	10YR	5.0 / 1	100				SILTY CLAY LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- ☐ Histosol (A1)  
☐ Histic Epipedon (A2)  
☐ Black Histic (A3)  
☐ Hydrogen Sulfide (A4)  
☐ Stratified Layers (A5) LRR C  
☐ 1 cm Muck (A9) LRR F D  
☐ Depleted Below Dark Surface (A11)  
☐ Thick Dark Surface (A12)  
☐ Sandy Mucky Mineral (S1)  
☐ Sandy Gleyed Matrix (S4)

- ☐ Sandy Redox (S5)  
☐ Stripped Matrix (S6)  
☐ Loamy Mucky Mineral (F1)  
☐ Loamy Gleyed Matrix (F2)  
☐ Depleted Matrix (F3)  
☐ Redox Dark Surface (F6)  
☐ Depleted Dark Surface (F7)  
☐ Redox Depressions (F8)  
☐ Vernal Pools (F9)

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)  
☐ 2 cm Muck (A10) (LRR B)  
☐ Reduced Vertic (F18)  
☐ Red Parent Material (TF2)  
☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No X

## Remarks:

Depleted layer a little too deep, soil fails to meet criteria for any hydric indicator.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)  
☐ High Water Table (A2)  
☐ Saturation (A3)  
☐ Water Marks (B1) (Nonriverine)  
☐ Sediment Deposits (B2) (Nonriverine)  
☐ Drift Deposits (B3) (Nonriverine)  
☐ Surface Soil Cracks (B6)  
☐ Inundation Visible on Aerial Imagery (B7)  
☐ Water-Stained Leaves (B9)  
☐ Salt Crust (B11)  
☐ Biotic Crust (B12)  
☐ Aquatic Fauna (B13)  
☐ Hydrogen Sulfide Odor (C1)  
☐ Oxidized Rhizospheres along Living Roots (C3)  
☐ Presence of Reduced Iron (C4)  
☐ Recent Iron Reduction in Tilled Soils (C6)  
☐ Thin Muck Surface (C7)  
☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)  
☐ Sediment Deposits (B2) (Riverine)  
☐ Drift Deposits (B3) (Riverine)  
☐ Drainage Patterns (B10)  
☐ Dry-Season Water Table (C2)  
☐ Crayfish Burrows (C8)  
☐ Saturation Visible on Aerial Imag.(C9)  
☐ Shallow Aquitard (D3)  
☒ FAC-Neutral Test (D5)

**Field Observations:**Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Water Table Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Saturation Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_

(includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

changing land use; currently being filled. no irrigation

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 6/25/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 15 Sampling Point: 24-W-201206251130  
 Investigators: Ron Kass Paul Dawson Section, Township, Range S 26 T 3 R 1  
 Landform (hillslope, terrace, etc.): Basin Local Relief (concave, convex, none): Concave Slope(%) 0  
 Subregion (LRR): LRR D Lat: 40.9684660934 Long: -111.923388025 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Saltair silty clay loam, 0 to 3 percent slopes NWI Classification: PEM

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No        (If No, explain in Remarks)  
 Are Vegetation       , Soil       , Hydrology       , significantly disturbed? Are "Normal Circumstances" present? Yes        No X  
 Are Vegetation       , Soil X, Hydrology       , naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No <u>      </u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No <u>      </u> Wetland ID: <u>24-OW-45</u>
Hydric Soil Present? Yes <u>      </u> No <u>X</u>	
Wetland Hydrology Present? Yes <u>X</u> No <u>      </u>	

Remarks:  
 Meets WOUS playa (except appears to be isolated), currently being filled.

## VEGETATION— Use scientific names of plants.

**Absolute % Cover** **Dominant Species** **Indicator Status**

Tree Stratum

Shrub Stratum

Herb Stratum (Plot size: 30 Ft )

<u>Suaeda calceoliformis</u>	<u>4</u>	<u>Y</u>	<u>FACW</u>
	<u>4</u>	=Total Cover	

Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across all Strata: 1 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	<u>0</u>	x 1 =	<u>0</u>
FACW species	<u>4</u>	x 2 =	<u>8</u>
FAC species	<u>0</u>	x 3 =	<u>0</u>
FACU species	<u>0</u>	x 4 =	<u>0</u>
UPL species	<u>0</u>	x 5 =	<u>0</u>
Column Totals:	<u>4</u> (A)	<u>8</u> (B)	

Prevalence Index = B/A= 2.00

### Hydrophytic Vegetation Indicators:

       Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
       Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
       Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No       

% Bare Ground in Herb Stratum 95 % Cover of Biotic Crust       

Remarks: (Include photo numbers here or on a separate sheet.)

Insufficient cover for wetland. Playa-like feature.



**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 18	2.5Y	5.0 / 3					SILT LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)           |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)       |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)   |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)   |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input type="checkbox"/> Depleted Matrix (F3)       |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)     |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)          |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |   |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)
- ☐ 2 cm Muck (A10) (LRR B)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☒ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No X \_\_\_\_\_**Remarks:**

Saline playa based on plant community, hydrology indicator, and depressional topography.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input checked="" type="checkbox"/> Surface Soil Cracks (B6)       | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)
- ☐ Sediment Deposits (B2) (Riverine)
- ☐ Drift Deposits (B3) (Riverine)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Shallow Aquitard (D3)
- ☒ FAC-Neutral Test (D5)

**Field Observations:**Surface Water Present? Yes \_\_\_\_\_ No X \_\_\_\_\_ Depth (inches): \_\_\_\_\_Water Table Present? Yes \_\_\_\_\_ No X \_\_\_\_\_ Depth (inches): \_\_\_\_\_Saturation Present? Yes \_\_\_\_\_ No X \_\_\_\_\_ Depth (inches): \_\_\_\_\_

(includes capillary fringe)

**Wetland Hydrology Present?** Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

**Remarks:**

Seasonal playa-like feature.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 6/25/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 16 Sampling Point: 25-N-201206251320  
 Investigators: Ron Kass Paul Dawson Section, Township, Range S 26 T 3 R 1  
 Landform (hillslope, terrace, etc.): Terrace Local Relief (concave, convex, none): Convex Slope(%) 5  
 Subregion (LRR): LRR D Lat: 40.9661108995 Long: -111.920019015 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Iron-ton-Draper complex, 0 to 3 percent slopes NWI Classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> Wetland ID: _____
Hydric Soil Present?	Yes _____ No <u>X</u>	
Wetland Hydrology Present?	Yes _____ No <u>X</u>	

Remarks:  
 Upland point.

## VEGETATION— Use scientific names of plants.

<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
60	Y	FACU
30	Y	FACU
90	=Total Cover	

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

Festuca pratensis

Trifolium repens

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 2 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 0.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>0</u>	x 2 = <u>0</u>
FAC species <u>0</u>	x 3 = <u>0</u>
FACU species <u>90</u>	x 4 = <u>360</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>90</u> (A)	<u>360</u> (B)

Prevalence Index = B/A = 4.00

### Hydrophytic Vegetation Indicators:

☐ Rapid Test for Hydrophytic Vegetation  
☐ Dominance Test > 50%  
☐ Prevalence Index ≤ 3.0  
☐ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
☐ Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes \_\_\_\_\_ No X

% Bare Ground in Herb Stratum 10 % Cover of Biotic Crust

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation not hydrophytic.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 18	10R	4.0 / 2					SILTY CLAY LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)           |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)       |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)   |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)   |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input type="checkbox"/> Depleted Matrix (F3)       |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)     |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)          |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |   |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)
- ☐ 2 cm Muck (A10) (LRR B)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No X**Remarks:**

Soil profile does not meet criteria for hydric indicators.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)
- ☐ Sediment Deposits (B2) (Riverine)
- ☐ Drift Deposits (B3) (Riverine)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

**Field Observations:**Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Water Table Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Saturation Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_

(includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

**Remarks:**

No hydrology indicators present.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 6/25/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: \_\_\_\_\_ Sampling Point: 25-N-201206251350  
 Investigators: Ron Kass Paul Dawson Section, Township, Range S 26 T 3 R 1  
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): Convex Slope(%) 1  
 Subregion (LRR): LRR D Lat: 40.9654743357 Long: -111.915280036 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Iron-ton-Draper complex, 0 to 3 percent slopes NWI Classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland?	Yes _____ No <u>X</u>
Hydric Soil Present?	Yes _____ No <u>X</u>		
Wetland Hydrology Present?	Yes _____ No <u>X</u>		Wetland ID: _____

Remarks:  
 Upland Point.

## VEGETATION— Use scientific names of plants.

Absolute  
% Cover

Dominant  
Species

Indicator  
Status

Tree Stratum

Shrub Stratum

Herb Stratum (Plot size: 30 Ft )

Festuca pratensis

85

Y

FACU

85

=Total Cover

Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species  
That are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant  
Species Across all Strata: 1 (B)

Percent of Dominant Species  
That are OBL, FACW, or FAC: 0.0% (A/B)

### Prevalence Index Worksheet:

	Total % Cover of:	Multiply by:
OBL species	<u>0</u>	x 1 = <u>0</u>
FACW species	<u>0</u>	x 2 = <u>0</u>
FAC species	<u>0</u>	x 3 = <u>0</u>
FACU species	<u>85</u>	x 4 = <u>340</u>
UPL species	<u>0</u>	x 5 = <u>0</u>
Column Totals:	<u>85</u> (A)	<u>340</u> (B)

Prevalence Index = B/A= 4.00

### Hydrophytic Vegetation Indicators:

\_\_\_\_ Rapid Test for Hydrophytic Vegetation  
 \_\_\_\_ Dominance Test > 50%  
 \_\_\_\_ Prevalence Index ≤ 3.0  
 \_\_\_\_ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 \_\_\_\_ Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes \_\_\_\_\_ No X

% Bare Ground in Herb Stratum 5 % Cover of Biotic Crust

Remarks: (Include photo numbers here or on a separate sheet.)



**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 18	10YR	4.0 / 2		100			SILTY CLAY LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)           |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)       |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)   |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)   |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input type="checkbox"/> Depleted Matrix (F3)       |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)     |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)          |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |   |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- |   |
|---|
| <input type="checkbox"/> 1 cm Muck (A9) (LRR C)     |
| <input type="checkbox"/> 2 cm Muck (A10) (LRR B)    |
| <input type="checkbox"/> Reduced Vertic (F18)       |
| <input type="checkbox"/> Red Parent Material (TF2)  |
| <input type="checkbox"/> Other (Explain in Remarks) |

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No X

## Remarks:

Soil profile does not meet criteria for hydric indicators.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- |   |
|---|
| <input type="checkbox"/> Water Marks (B1) (Riverine)            |
| <input type="checkbox"/> Sediment Deposits (B2) (Riverine)      |
| <input type="checkbox"/> Drift Deposits (B3) (Riverine)         |
| <input type="checkbox"/> Drainage Patterns (B10)                |
| <input type="checkbox"/> Dry-Season Water Table (C2)            |
| <input type="checkbox"/> Crayfish Burrows (C8)                  |
| <input type="checkbox"/> Saturation Visible on Aerial Imag.(C9) |
| <input type="checkbox"/> Shallow Aquitard (D3)                  |
| <input type="checkbox"/> FAC-Neutral Test (D5)                  |

**Field Observations:**Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Water Table Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Saturation Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_

(includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 6/25/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 16 Sampling Point: 25-N-201206251405  
 Investigators: Ron Kass Paul Dawson Section, Township, Range S 26 T 3 R 1  
 Landform (hillslope, terrace, etc.): Basin Local Relief (concave, convex, none): Concave Slope(%) 1  
 Subregion (LRR): LRR D Lat: 40.9654027571 Long: -111.913548105 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Parleys loam, 1 to 3 percent slopes NWI Classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> Wetland ID: _____
Hydric Soil Present?	Yes _____ No <u>X</u>	
Wetland Hydrology Present?	Yes _____ No <u>X</u>	

Remarks:  
 Upland point.

## VEGETATION— Use scientific names of plants.

**Absolute % Cover** **Dominant Species** **Indicator Status**

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

Carex praegracilis	30	Y	FACW
Trifolium fragiferum	30	Y	FACU
Malva neglecta	20	Y	UPL
Ambrosia psilostachya	15	N	FACU
	95	=Total Cover	

### Vine Stratum

## Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 1 (A)  
 Total Number of Dominant Species Across all Strata: 3 (B)  
 Percent of Dominant Species That are OBL, FACW, or FAC: 33.3% (A/B)

## Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>30</u>	x 2 = <u>60</u>
FAC species <u>0</u>	x 3 = <u>0</u>
FACU species <u>45</u>	x 4 = <u>180</u>
UPL species <u>20</u>	x 5 = <u>100</u>
Column Totals: <u>95</u> (A)	<u>340</u> (B)

Prevalence Index = B/A = 3.58

## Hydrophytic Vegetation Indicators:

☐ Rapid Test for Hydrophytic Vegetation  
☐ Dominance Test > 50%  
☐ Prevalence Index ≤ 3.0  
☐ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
☐ Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes \_\_\_\_\_ No X

% Bare Ground in Herb Stratum 20 % Cover of Biotic Crust \_\_\_\_\_

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation not hydrophytic.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 18	10YR	4.0 / 2		100			SILT LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)           |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)       |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)   |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)   |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input type="checkbox"/> Depleted Matrix (F3)       |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)     |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)          |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |   |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- |   |
|---|
| <input type="checkbox"/> 1 cm Muck (A9) (LRR C)     |
| <input type="checkbox"/> 2 cm Muck (A10) (LRR B)    |
| <input type="checkbox"/> Reduced Vertic (F18)       |
| <input type="checkbox"/> Red Parent Material (TF2)  |
| <input type="checkbox"/> Other (Explain in Remarks) |

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No X

## Remarks:

Soil profile does not meet criteria for hydric indicators.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- |   |
|---|
| <input type="checkbox"/> Water Marks (B1) (Riverine)            |
| <input type="checkbox"/> Sediment Deposits (B2) (Riverine)      |
| <input type="checkbox"/> Drift Deposits (B3) (Riverine)         |
| <input checked="" type="checkbox"/> Drainage Patterns (B10)     |
| <input type="checkbox"/> Dry-Season Water Table (C2)            |
| <input type="checkbox"/> Crayfish Burrows (C8)                  |
| <input type="checkbox"/> Saturation Visible on Aerial Imag.(C9) |
| <input type="checkbox"/> Shallow Aquitard (D3)                  |
| <input type="checkbox"/> FAC-Neutral Test (D5)                  |

**Field Observations:**Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Water Table Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Saturation Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_

(includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

No wetland hydrology present.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 6/26/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 17 Sampling Point: 25-N-201206261133  
 Investigators: Ron Kass Paul Dawson Section, Township, Range S 25 T 3 R 1  
 Landform (hillslope, terrace, etc.): Terrace Local Relief (concave, convex, none): Convex Slope(%) 5  
 Subregion (LRR): LRR D Lat: 40.9624303498 Long: -111.910050951 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Warm Springs fine sandy loam, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <u>X</u> Hydric Soil Present? Yes _____ No <u>X</u> Wetland Hydrology Present? Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>X</u> Wetland ID: _____
---	--

Remarks:  
 Upland point.

### VEGETATION— Use scientific names of plants.

**Absolute % Cover**    **Dominant Species**    **Indicator Status**

#### Tree Stratum

#### Shrub Stratum

#### Herb Stratum (Plot size: 30 Ft )

Hordeum marinum	40	Y	FAC
Bromus japonicus	20	Y	UPL
Cirsium vulgare	15	N	FACU
Lepidium perfoliatum	5	N	FACU
	80	=Total Cover	

#### Vine Stratum

#### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across all Strata: 2 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 50.0% (A/B)

#### Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	40	x 3 =	120
FACU species	20	x 4 =	80
UPL species	20	x 5 =	100
Column Totals:	80 (A)		300 (B)

Prevalence Index = B/A= 3.75

#### Hydrophytic Vegetation Indicators:

\_\_\_\_\_ Rapid Test for Hydrophytic Vegetation  
 \_\_\_\_\_ Dominance Test > 50%  
 \_\_\_\_\_ Prevalence Index ≤ 3.0  
 \_\_\_\_\_ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 \_\_\_\_\_ Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes \_\_\_\_\_ No X

% Bare Ground in Herb Stratum \_\_\_\_\_ % Cover of Biotic Crust \_\_\_\_\_

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation is not hydrophytic.



**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 18	10YR	4.0 / 2		85	D	M	SILTY CLAY LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)           |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)       |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)   |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)   |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input type="checkbox"/> Depleted Matrix (F3)       |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)     |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)          |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |   |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- |   |
|---|
| <input type="checkbox"/> 1 cm Muck (A9) (LRR C)     |
| <input type="checkbox"/> 2 cm Muck (A10) (LRR B)    |
| <input type="checkbox"/> Reduced Vertic (F18)       |
| <input type="checkbox"/> Red Parent Material (TF2)  |
| <input type="checkbox"/> Other (Explain in Remarks) |

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No X

## Remarks:

Soil profile does not meet criteria for hydric indicators.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- |   |
|---|
| <input type="checkbox"/> Water Marks (B1) (Riverine)            |
| <input type="checkbox"/> Sediment Deposits (B2) (Riverine)      |
| <input type="checkbox"/> Drift Deposits (B3) (Riverine)         |
| <input type="checkbox"/> Drainage Patterns (B10)                |
| <input type="checkbox"/> Dry-Season Water Table (C2)            |
| <input type="checkbox"/> Crayfish Burrows (C8)                  |
| <input type="checkbox"/> Saturation Visible on Aerial Imag.(C9) |
| <input type="checkbox"/> Shallow Aquitard (D3)                  |
| <input type="checkbox"/> FAC-Neutral Test (D5)                  |

**Field Observations:**Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Water Table Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Saturation Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_

(includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

No wetland hydrology.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 9/26/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 17 Sampling Point: 25-N-201209261405  
 Investigators: Nate Nichols Donovan Gross Section, Township, Range S 25 T 3 R 1  
 Landform (hillslope, terrace, etc.): Basin Local Relief (concave, convex, none): Concave Slope(%) 0  
 Subregion (LRR): LRR D Lat: 40.9657757431 Long: -111.906111973 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Logan silty clay loam, 0 to 3 percent slopes NWI Classification: \_\_\_\_\_  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>X</u>
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	
Wetland ID: _____	

### Remarks:

100% Thinopyrum interm. Upland point.

## VEGETATION— Use scientific names of plants.

Absolute  
% Cover

Dominant  
Species

Indicator  
Status

Tree Stratum

Shrub Stratum

Herb Stratum (Plot size: 30 Ft )

Thinopyrum intermedium

100

Y

UPL

100

=Total Cover

Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 1 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 0.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>0</u>	x 2 = <u>0</u>
FAC species <u>0</u>	x 3 = <u>0</u>
FACU species <u>0</u>	x 4 = <u>0</u>
UPL species <u>100</u>	x 5 = <u>500</u>
Column Totals: <u>100</u> (A)	<u>500</u> (B)

Prevalence Index = B/A= 5.00

### Hydrophytic Vegetation Indicators:

       Rapid Test for Hydrophytic Vegetation  
       Dominance Test > 50%  
       Prevalence Index ≤ 3.0  
       Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
       Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes \_\_\_\_\_ No X

% Bare Ground in Herb Stratum 0

% Cover of Biotic Crust

Remarks: (Include photo numbers here or on a separate sheet.)

Upland vegetation.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)           |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)       |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)   |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)   |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input type="checkbox"/> Depleted Matrix (F3)       |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)     |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)          |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |   |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)
- ☐ 2 cm Muck (A10) (LRR B)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No X**Remarks:**

100% upland vegetation, no soil data collected.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)
- ☐ Sediment Deposits (B2) (Riverine)
- ☐ Drift Deposits (B3) (Riverine)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

**Field Observations:**Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Water Table Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Saturation Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_

(includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

**Remarks:**

No hydrology noted. Upland Point

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 4/30/2013  
 Applicant/Owner: UDOT State: UT Map/Sheet: 17 Sampling Point: 25-N-201304301402  
 Investigators: Mike Perkins Nate Nichols Section, Township, Range S 25 T 3 R 1  
 Landform (hillslope, terrace, etc.): Depression Local Relief (concave, convex, none): None Slope(%) 2  
 Subregion (LRR): LRR D Lat: 40.956746 Long: -111.892217 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Draper loam, drained, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> <b>Wetland ID:</b> _____
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes _____ No <u>X</u>	

Remarks:  
 Sampling point is not a wetland. Only soils appear to pass wetland criteria, but may be remnant features.

## VEGETATION— Use scientific names of plants.

**Absolute % Cover** **Dominant Species** **Indicator Status**

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

Thinopyrum intermedium	40	Y	UPL
Carex praegracilis	20	Y	FACW
Cardaria draba	15	N	UPL
Conium maculatum	15	N	FACW
Lactuca serriola	10	N	FACU
	100	=Total Cover	

### Vine Stratum

## Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across all Strata: 2 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 50.0% (A/B)

## Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>35</u>	x 2 = <u>70</u>
FAC species <u>0</u>	x 3 = <u>0</u>
FACU species <u>10</u>	x 4 = <u>40</u>
UPL species <u>55</u>	x 5 = <u>275</u>
Column Totals: <u>100</u> (A)	<u>385</u> (B)

Prevalence Index = B/A= 3.85

## Hydrophytic Vegetation Indicators:

☐ Rapid Test for Hydrophytic Vegetation  
☐ Dominance Test > 50%  
☐ Prevalence Index ≤ 3.0  
☐ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
☐ Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes \_\_\_\_\_ No X

% Bare Ground in Herb Stratum \_\_\_\_\_ % Cover of Biotic Crust \_\_\_\_\_

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation does not qualify as hydrophytic



**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks	
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>			
0 to 6	10YR	3 / 1	100				CLAY LOAM		
6 to 12	10YR	3 / 1	35	10YR 5/1	65	D	M	CLAY LOAM	
12 to 17	10YR	5 / 1	100					SANDY CLAY LOAM	
17 to	/								Rock Layer

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |  |
|--|--|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)                |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)            |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)        |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)        |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input checked="" type="checkbox"/> Depleted Matrix (F3) |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)         |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7)      |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)          |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)               |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |  |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- |   |
|---|
| <input type="checkbox"/> 1 cm Muck (A9) (LRR C)     |
| <input type="checkbox"/> 2 cm Muck (A10) (LRR B)    |
| <input type="checkbox"/> Reduced Vertic (F18)       |
| <input type="checkbox"/> Red Parent Material (TF2)  |
| <input type="checkbox"/> Other (Explain in Remarks) |

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes   X   No       

## Remarks:

Meets F3 Indicator, but depleted color may be remnant of past conditions.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- |   |
|---|
| <input type="checkbox"/> Water Marks (B1) (Riverine)            |
| <input type="checkbox"/> Sediment Deposits (B2) (Riverine)      |
| <input type="checkbox"/> Drift Deposits (B3) (Riverine)         |
| <input type="checkbox"/> Drainage Patterns (B10)                |
| <input type="checkbox"/> Dry-Season Water Table (C2)            |
| <input type="checkbox"/> Crayfish Burrows (C8)                  |
| <input type="checkbox"/> Saturation Visible on Aerial Imag.(C9) |
| <input type="checkbox"/> Shallow Aquitard (D3)                  |
| <input type="checkbox"/> FAC-Neutral Test (D5)                  |

**Field Observations:**Surface Water Present? Yes        No   X   Depth (inches): \_\_\_\_\_Water Table Present? Yes        No   X   Depth (inches): \_\_\_\_\_Saturation Present? Yes        No   X   Depth (inches): \_\_\_\_\_

(includes capillary fringe)

**Wetland Hydrology Present?** Yes        No   X  

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

No qualifying hydrology indicators observed. Soils dry until becoming moist at 17 inches.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 6/25/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 16 Sampling Point: 25-W-201206251221  
 Investigators: Ron Kass Paul Dawson Section, Township, Range S 26 T 3 R 1  
 Landform (hillslope, terrace, etc.): Basin Local Relief (concave, convex, none): Concave Slope(%) 1  
 Subregion (LRR): LRR D Lat: 40.9661249978 Long: -111.91965836 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Ironton-Draper complex, 0 to 3 percent slopes NWI Classification: PEMC

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No        (If No, explain in Remarks)  
 Are Vegetation       , Soil       , Hydrology       , significantly disturbed? Are "Normal Circumstances" present? Yes X No         
 Are Vegetation       , Soil       , Hydrology       , naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No <u>      </u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No <u>      </u> Wetland ID: <u>24-W-47</u>
Hydric Soil Present? Yes <u>X</u> No <u>      </u>	
Wetland Hydrology Present? Yes <u>X</u> No <u>      </u>	

Remarks:  
 Sampling point is a wetland.

## VEGETATION— Use scientific names of plants.

	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
<u>Tree Stratum</u>			
<u>Shrub Stratum</u>			
<u>Herb Stratum</u> (Plot size: <u>30 Ft</u> )			
Ambrosia psilostachya	20	Y	FACU
Eleocharis palustris	20	Y	OBL
Typha angustifolia	20	Y	OBL
Hordeum jubatum	10	N	FAC
Xanthium strumarium	5	N	FAC
Malva neglecta	2	N	UPL
	77	=Total Cover	

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 2 (A)  
 Total Number of Dominant Species Across all Strata: 3 (B)  
 Percent of Dominant Species That are OBL, FACW, or FAC: 66.7% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>40</u>	x 1 = <u>40</u>
FACW species <u>0</u>	x 2 = <u>0</u>
FAC species <u>15</u>	x 3 = <u>45</u>
FACU species <u>20</u>	x 4 = <u>80</u>
UPL species <u>2</u>	x 5 = <u>10</u>
Column Totals: <u>77</u> (A)	<u>175</u> (B)

Prevalence Index = B/A = 2.27

### Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
       Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
       Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No       

% Bare Ground in Herb Stratum 10 % Cover of Biotic Crust       

Remarks: (Include photo numbers here or on a separate sheet.)  
 Vegetation in transition; obligate and upland vegetation

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 18	10YR	3.0 / 1		100			SILT LOAM	Mucky

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |  |
|--|--|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)                    |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)                |
| <input type="checkbox"/> Black Histic (A3)                 | <input checked="" type="checkbox"/> Loamy Mucky Mineral (F1) |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)            |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input type="checkbox"/> Depleted Matrix (F3)                |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)             |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7)          |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)              |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)                   |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |  |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- |   |
|---|
| <input type="checkbox"/> 1 cm Muck (A9) (LRR C)     |
| <input type="checkbox"/> 2 cm Muck (A10) (LRR B)    |
| <input type="checkbox"/> Reduced Vertic (F18)       |
| <input type="checkbox"/> Red Parent Material (TF2)  |
| <input type="checkbox"/> Other (Explain in Remarks) |

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes X No \_\_\_\_\_

## Remarks:

Soil profile meets F1 indicator.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input checked="" type="checkbox"/> Salt Crust (B11)                   |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- |   |
|---|
| <input type="checkbox"/> Water Marks (B1) (Riverine)            |
| <input type="checkbox"/> Sediment Deposits (B2) (Riverine)      |
| <input type="checkbox"/> Drift Deposits (B3) (Riverine)         |
| <input checked="" type="checkbox"/> Drainage Patterns (B10)     |
| <input type="checkbox"/> Dry-Season Water Table (C2)            |
| <input type="checkbox"/> Crayfish Burrows (C8)                  |
| <input type="checkbox"/> Saturation Visible on Aerial Imag.(C9) |
| <input type="checkbox"/> Shallow Aquitard (D3)                  |
| <input checked="" type="checkbox"/> FAC-Neutral Test (D5)       |

**Field Observations:**Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Water Table Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Saturation Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_

(includes capillary fringe)

**Wetland Hydrology Present?** Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

Site is currently transitioning to uplands with reduced hydrology and filling. Still does qualify as having wetland Hydrology due to the on site drainage patterns and positive Fac-Neutral test.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 6/25/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: \_\_\_\_\_ Sampling Point: 25-W-201206251337  
 Investigators: Ron Kass Paul Dawson Section, Township, Range S 26 T 3 R 1  
 Landform (hillslope, terrace, etc.): Basin Local Relief (concave, convex, none): Concave Slope(%) 2  
 Subregion (LRR): LRR D Lat: 40.9654185892 Long: -111.915658787 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Ironton-Draper complex, 0 to 3 percent slopes NWI Classification: PEMC  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____  <b>Wetland ID:</b> <u>25-W-49</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks:  
 Emergent marsh with some willow.

## VEGETATION— Use scientific names of plants.

<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
<u>Tree Stratum</u>		
10	Y	FACW
10	=Total Cover	
<u>Shrub Stratum</u> (Plot size: 30 Ft )		
30	Y	FACW
25	Y	OBL
5	N	FAC
60	=Total Cover	
<u>Vine Stratum</u>		

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 3 (A)  
 Total Number of Dominant Species Across all Strata: 3 (B)  
 Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>25</u>	x 1 = <u>25</u>
FACW species <u>40</u>	x 2 = <u>80</u>
FAC species <u>5</u>	x 3 = <u>15</u>
FACU species <u>0</u>	x 4 = <u>0</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>70</u> (A)	<u>120</u> (B)

Prevalence Index = B/A = 1.71

### Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
 Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No \_\_\_\_\_

% Bare Ground in Herb Stratum 10 % Cover of Biotic Crust

Remarks: (Include photo numbers here or on a separate sheet.)



**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 18	10YR	4.0 / 1	95	10yr 4/6	5	C	M	SILTY CLAY LOAM

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) LRR C
- ☐ 1 cm Muck (A9) LRR F D
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)

- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☒ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)
- ☐ 2 cm Muck (A10) (LRR B)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes X No \_\_\_\_\_

## Remarks:

Soil profile meets F3 indicator.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1) (Nonriverine)
- ☐ Sediment Deposits (B2) (Nonriverine)
- ☐ Drift Deposits (B3) (Nonriverine)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)
- ☐ Sediment Deposits (B2) (Riverine)
- ☐ Drift Deposits (B3) (Riverine)
- ☒ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Shallow Aquitard (D3)
- ☒ FAC-Neutral Test (D5)

**Field Observations:**Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Water Table Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Saturation Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_

(includes capillary fringe)

**Wetland Hydrology Present?** Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 6/25/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 16 Sampling Point: 25-W-201206251508  
 Investigators: Ron Kass Paul Dawson Section, Township, Range S 26 T 3 R 1  
 Landform (hillslope, terrace, etc.): Basin Local Relief (concave, convex, none): Concave Slope(%) 2  
 Subregion (LRR): LRR D Lat: 40.966352127 Long: -111.920108535 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Iron-ton-Draper complex, 0 to 3 percent slopes NWI Classification: PEMC

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No        (If No, explain in Remarks)  
 Are Vegetation       , Soil       , Hydrology       , significantly disturbed? Are "Normal Circumstances" present? Yes X No         
 Are Vegetation       , Soil       , Hydrology       , naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No <u>      </u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No <u>      </u> Wetland ID: <u>24-W-46</u>
Hydric Soil Present? Yes <u>X</u> No <u>      </u>	
Wetland Hydrology Present? Yes <u>X</u> No <u>      </u>	

Remarks:  
 Area in irrigated agricultural field qualifies as a wetland.

## VEGETATION— Use scientific names of plants.

**Absolute % Cover** **Dominant Species** **Indicator Status**

Tree Stratum

Shrub Stratum

Herb Stratum (Plot size: 30 Ft )

Juncus acutus

90

Y

FACW

90

=Total Cover

Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across all Strata: 1 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	<u>0</u>	x 1 =	<u>0</u>
FACW species	<u>90</u>	x 2 =	<u>180</u>
FAC species	<u>0</u>	x 3 =	<u>0</u>
FACU species	<u>0</u>	x 4 =	<u>0</u>
UPL species	<u>0</u>	x 5 =	<u>0</u>
Column Totals:	<u>90</u> (A)		<u>180</u> (B)

Prevalence Index = B/A = 2.00

### Hydrophytic Vegetation Indicators:

       Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
       Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
       Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No       

% Bare Ground in Herb Stratum 2 % Cover of Biotic Crust

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation is hydrophytic.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)**

Depth (inches)	Matrix			Redox Features				Texture	Remarks
	Color (moist)		%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 12	10YR	3.0 / 2	70	10yr 5/1	30	D	M	SILTY CLAY LOAM	
12 to 18	10YR	3.0 / 2	20	10yr 5/1	80	D	M	SILTY CLAY LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- ☐ Histosol (A1)  
☐ Histic Epipedon (A2)  
☐ Black Histic (A3)  
☐ Hydrogen Sulfide (A4)  
☐ Stratified Layers (A5) LRR C  
☐ 1 cm Muck (A9) LRR F D  
☒ Depleted Below Dark Surface (A11)  
☐ Thick Dark Surface (A12)  
☐ Sandy Mucky Mineral (S1)  
☐ Sandy Gleyed Matrix (S4)

- ☐ Sandy Redox (S5)  
☐ Stripped Matrix (S6)  
☐ Loamy Mucky Mineral (F1)  
☐ Loamy Gleyed Matrix (F2)  
☐ Depleted Matrix (F3)  
☐ Redox Dark Surface (F6)  
☐ Depleted Dark Surface (F7)  
☐ Redox Depressions (F8)  
☐ Vernal Pools (F9)

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)  
☐ 2 cm Muck (A10) (LRR B)  
☐ Reduced Vertic (F18)  
☐ Red Parent Material (TF2)  
☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes   X   No       

Remarks:  
Soil profile meets A11 indicator.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)  
☐ High Water Table (A2)  
☐ Saturation (A3)  
☐ Water Marks (B1) (Nonriverine)  
☐ Sediment Deposits (B2) (Nonriverine)  
☐ Drift Deposits (B3) (Nonriverine)  
☐ Surface Soil Cracks (B6)  
☐ Inundation Visible on Aerial Imagery (B7)  
☐ Water-Stained Leaves (B9)  
☐ Salt Crust (B11)  
☐ Biotic Crust (B12)  
☐ Aquatic Fauna (B13)  
☐ Hydrogen Sulfide Odor (C1)  
☐ Oxidized Rhizospheres along Living Roots (C3)  
☐ Presence of Reduced Iron (C4)  
☐ Recent Iron Reduction in Tilled Soils (C6)  
☐ Thin Muck Surface (C7)  
☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)  
☐ Sediment Deposits (B2) (Riverine)  
☐ Drift Deposits (B3) (Riverine)  
☒ Drainage Patterns (B10)  
☐ Dry-Season Water Table (C2)  
☐ Crayfish Burrows (C8)  
☐ Saturation Visible on Aerial Imag.(C9)  
☐ Shallow Aquitard (D3)  
☒ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present? Yes        No   X   Depth (inches): \_\_\_\_\_  
Water Table Present? Yes        No   X   Depth (inches): \_\_\_\_\_  
Saturation Present? Yes        No   X   Depth (inches): \_\_\_\_\_  
(includes capillary fringe)

**Wetland Hydrology Present?** Yes   X   No       

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

Site appears to be affected by seasonal irrigation. Qualifies as a having hydrology by drainage patterns and the FAC-Neutral test.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 6/26/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 17 Sampling Point: 25-W-201206260847  
 Investigators: Ron Kass Paul Dawson Section, Township, Range S 25 T 3 R 1  
 Landform (hillslope, terrace, etc.): Basin Local Relief (concave, convex, none): Concave Slope(%) 10  
 Subregion (LRR): LRR D Lat: 40.9616894831 Long: -111.905905681 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Airport silt loam, 0 to 2 percent slopes NWI Classification: PEMC

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No        (If No, explain in Remarks)  
 Are Vegetation       , Soil       , Hydrology       , significantly disturbed? Are "Normal Circumstances" present? Yes        No X  
 Are Vegetation       , Soil X, Hydrology       , naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No <u>      </u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No <u>      </u> Wetland ID: <u>25-W-56</u>
Hydric Soil Present? Yes <u>X</u> No <u>      </u>	
Wetland Hydrology Present? Yes <u>X</u> No <u>      </u>	

Remarks:  
 Sampling point is a wetland. Saline soil present.

## VEGETATION— Use scientific names of plants.

**Absolute % Cover** **Dominant Species** **Indicator Status**

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

Allenrolfea occidentalis	20	Y	FACW
Puccinellia nuttalliana	10	Y	FACW
Hordeum marinum	5	N	FAC
	35	=Total Cover	

### Vine Stratum

## Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across all Strata: 2 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

## Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>30</u>	x 2 = <u>60</u>
FAC species <u>5</u>	x 3 = <u>15</u>
FACU species <u>0</u>	x 4 = <u>0</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>35</u> (A)	<u>75</u> (B)

Prevalence Index = B/A = 2.14

## Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
 Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No       

% Bare Ground in Herb Stratum 65 % Cover of Biotic Crust

Remarks: (Include photo numbers here or on a separate sheet.)  
 Vegetation is hydrophytic.



**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 18	2.5Y	4.0 / 1					CLAY LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)           |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)       |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)   |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)   |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input type="checkbox"/> Depleted Matrix (F3)       |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)     |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)          |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |   |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)
- ☐ 2 cm Muck (A10) (LRR B)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☒ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes X No \_\_\_\_\_

## Remarks:

Hydric indicators not identified but saline soil likely problematic.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input checked="" type="checkbox"/> Salt Crust (B11)                   |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)
- ☐ Sediment Deposits (B2) (Riverine)
- ☐ Drift Deposits (B3) (Riverine)
- ☒ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Shallow Aquitard (D3)
- ☒ FAC-Neutral Test (D5)

**Field Observations:**Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Water Table Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Saturation Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_

(includes capillary fringe)

**Wetland Hydrology Present?** Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

Sampling point meets criteria for wetland hydrology.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 6/26/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 17 Sampling Point: 25-W-201206260906  
 Investigators: Ron Kass Paul Dawson Section, Township, Range S 25 T 3 R 1  
 Landform (hillslope, terrace, etc.): Basin Local Relief (concave, convex, none): Concave Slope(%)       
 Subregion (LRR): LRR D Lat: 40.9619790308 Long: -111.907484055 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Airport silt loam, 0 to 2 percent slopes NWI Classification: PEMC

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No      (If No, explain in Remarks)  
 Are Vegetation     , Soil     , Hydrology     , significantly disturbed? Are "Normal Circumstances" present? Yes X No       
 Are Vegetation     , Soil     , Hydrology     , naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No <u>    </u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No <u>    </u>  <b>Wetland ID:</b> <u>25-W-13</u>
Hydric Soil Present? Yes <u>X</u> No <u>    </u>	
Wetland Hydrology Present? Yes <u>X</u> No <u>    </u>	

Remarks:  
 Sampling point is a wetland.

## VEGETATION— Use scientific names of plants.

**Absolute % Cover** **Dominant Species** **Indicator Status**

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

Eleocharis palustris	75	Y	OBL
Schoenoplectus pungens	15	N	OBL
Polypogon monspeliensis	10	N	FACW
	100	=Total Cover	

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across all Strata: 1 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>90</u>	x 1 = <u>90</u>
FACW species <u>10</u>	x 2 = <u>20</u>
FAC species <u>0</u>	x 3 = <u>0</u>
FACU species <u>0</u>	x 4 = <u>0</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>100</u> (A)	<u>110</u> (B)

Prevalence Index = B/A = 1.10

### Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
 Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No     

% Bare Ground in Herb Stratum % Cover of Biotic Crust

Remarks: (Include photo numbers here or on a separate sheet.)  
 Vegetation is hydrophytic.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 18	GLEY 1	6.0/ 5GY	100				CLAY	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |  |
|--|--|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)                    |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)                |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)            |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input checked="" type="checkbox"/> Loamy Gleyed Matrix (F2) |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input type="checkbox"/> Depleted Matrix (F3)                |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)             |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7)          |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)              |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)                   |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |  |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- |   |
|---|
| <input type="checkbox"/> 1 cm Muck (A9) (LRR C)     |
| <input type="checkbox"/> 2 cm Muck (A10) (LRR B)    |
| <input type="checkbox"/> Reduced Vertic (F18)       |
| <input type="checkbox"/> Red Parent Material (TF2)  |
| <input type="checkbox"/> Other (Explain in Remarks) |

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes  X  No \_\_\_\_\_

## Remarks:

Soil profile meets F2 indicator.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input checked="" type="checkbox"/> Salt Crust (B11)                   |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- |   |
|---|
| <input type="checkbox"/> Water Marks (B1) (Riverine)            |
| <input type="checkbox"/> Sediment Deposits (B2) (Riverine)      |
| <input type="checkbox"/> Drift Deposits (B3) (Riverine)         |
| <input checked="" type="checkbox"/> Drainage Patterns (B10)     |
| <input type="checkbox"/> Dry-Season Water Table (C2)            |
| <input type="checkbox"/> Crayfish Burrows (C8)                  |
| <input type="checkbox"/> Saturation Visible on Aerial Imag.(C9) |
| <input type="checkbox"/> Shallow Aquitard (D3)                  |
| <input checked="" type="checkbox"/> FAC-Neutral Test (D5)       |

**Field Observations:**Surface Water Present? Yes \_\_\_\_\_ No  X  Depth (inches): \_\_\_\_\_Water Table Present? Yes \_\_\_\_\_ No  X  Depth (inches): \_\_\_\_\_Saturation Present? Yes \_\_\_\_\_ No  X  Depth (inches): \_\_\_\_\_

(includes capillary fringe)

**Wetland Hydrology Present?** Yes  X  No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

Sampling point meets criteria for wetland hydrology.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 6/26/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 17 Sampling Point: 25-W-201206261125  
 Investigators: Ron Kass Paul Dawson Section, Township, Range S 25 T 3 R 1  
 Landform (hillslope, terrace, etc.): Basin Local Relief (concave, convex, none): Concave Slope(%) 20  
 Subregion (LRR): LRR D Lat: 40.9626688545 Long: -111.910223102 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Warm Springs fine sandy loam, 0 to 1 percent slopes NWI Classification: PEMC  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No        (If No, explain in Remarks)  
 Are Vegetation       , Soil       , Hydrology       , significantly disturbed? Are "Normal Circumstances" present? Yes X No         
 Are Vegetation       , Soil       , Hydrology       , naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No <u>      </u> Hydric Soil Present? Yes <u>X</u> No <u>      </u> Wetland Hydrology Present? Yes <u>X</u> No <u>      </u>	Is the Sampled Area within a Wetland? Yes <u>X</u> No <u>      </u> Wetland ID: <u>25-W-60</u>
Remarks: Wetland point.	

## VEGETATION— Use scientific names of plants.

**Absolute % Cover**    **Dominant Species**    **Indicator Status**

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

Distichlis spicata	40	Y	FAC
Eleocharis palustris	40	Y	OBL
Ranunculus sceleratus	2	N	OBL
	82	=Total Cover	

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 2 (A)  
 Total Number of Dominant Species Across all Strata: 2 (B)  
 Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	<u>42</u>	x 1 =	<u>42</u>
FACW species	<u>0</u>	x 2 =	<u>0</u>
FAC species	<u>40</u>	x 3 =	<u>120</u>
FACU species	<u>0</u>	x 4 =	<u>0</u>
UPL species	<u>0</u>	x 5 =	<u>0</u>
Column Totals:	<u>82</u> (A)		<u>162</u> (B)
Prevalence Index = B/A= <u>1.98</u>			

### Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
 Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No       

% Bare Ground in Herb Stratum 20 % Cover of Biotic Crust

Remarks: (Include photo numbers here or on a separate sheet.)

Hydrophytic vegetation present.



**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 11	10YR	4.0 / 1	100				SILT LOAM	
11 to 18	10YR	4.0 / 1	15	10yr 5/1	85	D	M	SILT LOAM

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |  |
|--|--|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)                |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)            |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)        |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)        |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input checked="" type="checkbox"/> Depleted Matrix (F3) |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)         |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7)      |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)          |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)               |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |  |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)
- ☐ 2 cm Muck (A10) (LRR B)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes   X   No       

Remarks:

Soil profile meets F3 indicator.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input checked="" type="checkbox"/> Surface Soil Cracks (B6)       | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)
- ☐ Sediment Deposits (B2) (Riverine)
- ☐ Drift Deposits (B3) (Riverine)
- ☒ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Shallow Aquitard (D3)
- ☒ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present?	Yes <u>      </u>	No <u>  X  </u>	Depth (inches):	_____
Water Table Present?	Yes <u>      </u>	No <u>  X  </u>	Depth (inches):	_____
Saturation Present?	Yes <u>      </u>	No <u>  X  </u>	Depth (inches):	_____

(includes capillary fringe)

**Wetland Hydrology Present?** Yes   X   No       

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Hydrology indicator B6 present.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 7/19/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 17 Sampling Point: 25-W-201207191315  
 Investigators: Trent Toler Section, Township, Range S 25 T 3 R 1  
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): Concave Slope(%) 0  
 Subregion (LRR): LRR D Lat: 40.9620755254 Long: -111.909972263 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Warm Springs fine sandy loam, 0 to 1 percent slopes NWI Classification: PEMC  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No        (If No, explain in Remarks)  
 Are Vegetation       , Soil       , Hydrology       , significantly disturbed? Are "Normal Circumstances" present? Yes        No X  
 Are Vegetation       , Soil       , Hydrology X, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No <u>      </u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No <u>      </u> <b>Wetland ID:</b> <u>25-W-72</u>
Hydric Soil Present? Yes <u>X</u> No <u>      </u>	
Wetland Hydrology Present? Yes <u>X</u> No <u>      </u>	

Remarks:  
 Saline meadow wetland transitions from upland hill to emergent marsh to the south.

## VEGETATION— Use scientific names of plants.

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
Eleocharis palustris	40	Y	OBL
Distichlis spicata	25	Y	FAC
Salicornia rubra	15	N	OBL
Hordeum jubatum	10	N	FAC
Trifolium fragiferum	10	N	FACU
Puccinellia nuttalliana	5	N	FACW
Spergularia maritima	3	N	FACW
	108	=Total Cover	

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across all Strata: 2 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>55</u>	x 1 = <u>55</u>
FACW species <u>8</u>	x 2 = <u>16</u>
FAC species <u>35</u>	x 3 = <u>105</u>
FACU species <u>10</u>	x 4 = <u>40</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>108</u> (A)	<u>216</u> (B)

Prevalence Index = B/A = 2.00

### Hydrophytic Vegetation Indicators:

       Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
       Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
       Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No       

% Bare Ground in Herb Stratum 15 % Cover of Biotic Crust

Remarks: (Include photo numbers here or on a separate sheet.)  
 mix of saline meadow community.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)		%	Color (moist)	%	Type <sup>1</sup>		
0 to 6	10YR	2.0/ 2	100				SILTY CLAY LOAM	
6 to 8	10YR	4.0/ 2	100				CLAY LOAM	
8 to 15	10YR	4.0/ 2	30	10YR 6/2	70	D	CLAY LOAM	
15 to 18	2.5Y	5.0/ 2	100				CLAY LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |  |
|--|--|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)                |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)            |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)        |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)        |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input checked="" type="checkbox"/> Depleted Matrix (F3) |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)         |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7)      |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)          |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)               |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |  |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)  
☐ 2 cm Muck (A10) (LRR B)  
☐ Reduced Vertic (F18)  
☐ Red Parent Material (TF2)  
☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes X No \_\_\_\_\_

## Remarks:

Soil passes indicator F3.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input checked="" type="checkbox"/> Salt Crust (B11)                   |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input checked="" type="checkbox"/> Surface Soil Cracks (B6)       | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)  
☐ Sediment Deposits (B2) (Riverine)  
☐ Drift Deposits (B3) (Riverine)  
☐ Drainage Patterns (B10)  
☐ Dry-Season Water Table (C2)  
☐ Crayfish Burrows (C8)  
☐ Saturation Visible on Aerial Imag.(C9)  
☐ Shallow Aquitard (D3)  
☒ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present?	Yes _____ No <u>X</u>	Depth (inches):	____
Water Table Present?	Yes _____ No <u>X</u>	Depth (inches):	____
Saturation Present?	Yes _____ No <u>X</u>	Depth (inches):	____

(includes capillary fringe)

**Wetland Hydrology Present?** Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

Data point dry, but wetland becomes wetter farther south. Dry time of year.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 9/26/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 17 Sampling Point: 25-W-201209261345  
 Investigators: Nate Nichols Donovan Gross Section, Township, Range S 25 T 3 R 1  
 Landform (hillslope, terrace, etc.): Basin Local Relief (concave, convex, none): Concave Slope(%) 1  
 Subregion (LRR): LRR D Lat: 40.9665029145 Long: -111.906184854 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Logan silty clay loam, 0 to 3 percent slopes NWI Classification: PEM

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No        (If No, explain in Remarks)  
 Are Vegetation       , Soil       , Hydrology       , significantly disturbed? Are "Normal Circumstances" present? Yes        No X  
 Are Vegetation       , Soil       , Hydrology X, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No <u>      </u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No <u>      </u> <b>Wetland ID:</b> <u>25-W-59</u>
Hydric Soil Present? Yes <u>X</u> No <u>      </u>	
Wetland Hydrology Present? Yes <u>X</u> No <u>      </u>	

Remarks:  
 J. arcticus and C. praegracilis dominated wet meadow.

## VEGETATION— Use scientific names of plants.

	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
<u>Tree Stratum</u>			
<u>Shrub Stratum</u>			
<u>Herb Stratum</u> (Plot size: <u>30 Ft</u> )			
Juncus arcticus	50	Y	FACW
Carex praegracilis	40	Y	FACW
Hordeum jubatum	5	N	FAC
Symphyotrichum chilense	5	N	FAC
	100	=Total Cover	
<u>Vine Stratum</u>			

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 2 (A)  
 Total Number of Dominant Species Across all Strata: 2 (B)  
 Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>90</u>	x 2 = <u>180</u>
FAC species <u>10</u>	x 3 = <u>30</u>
FACU species <u>0</u>	x 4 = <u>0</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>100</u> (A)	<u>210</u> (B)
Prevalence Index = B/A= <u>2.10</u>	

### Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
 Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No       

% Bare Ground in Herb Stratum 0 % Cover of Biotic Crust 0

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation is hydrophytic.



**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 4	10YR 2/ 1	100					SILT LOAM	
4 to 9	10YR 2/ 1	80	10YR 5/1	20	D	M	CLAY LOAM	
9 to 18	10YR 5/ 1	90	10YR 3/1	10	D	M	CLAY LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- ☐ Histosol (A1)  
☐ Histic Epipedon (A2)  
☐ Black Histic (A3)  
☐ Hydrogen Sulfide (A4)  
☐ Stratified Layers (A5) LRR C  
☐ 1 cm Muck (A9) LRR F D  
☒ Depleted Below Dark Surface (A11)  
☐ Thick Dark Surface (A12)  
☐ Sandy Mucky Mineral (S1)  
☐ Sandy Gleyed Matrix (S4)

- ☐ Sandy Redox (S5)  
☐ Stripped Matrix (S6)  
☐ Loamy Mucky Mineral (F1)  
☐ Loamy Gleyed Matrix (F2)  
☐ Depleted Matrix (F3)  
☐ Redox Dark Surface (F6)  
☐ Depleted Dark Surface (F7)  
☐ Redox Depressions (F8)  
☐ Vernal Pools (F9)

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)  
☐ 2 cm Muck (A10) (LRR B)  
☐ Reduced Vertic (F18)  
☐ Red Parent Material (TF2)  
☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes X No \_\_\_\_\_

## Remarks:

Soil passes indicator A11.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)  
☐ High Water Table (A2)  
☐ Saturation (A3)  
☐ Water Marks (B1) (Nonriverine)  
☐ Sediment Deposits (B2) (Nonriverine)  
☐ Drift Deposits (B3) (Nonriverine)  
☐ Surface Soil Cracks (B6)  
☐ Inundation Visible on Aerial Imagery (B7)  
☐ Water-Stained Leaves (B9)  
☐ Salt Crust (B11)  
☐ Biotic Crust (B12)  
☐ Aquatic Fauna (B13)  
☐ Hydrogen Sulfide Odor (C1)  
☐ Oxidized Rhizospheres along Living Roots (C3)  
☐ Presence of Reduced Iron (C4)  
☐ Recent Iron Reduction in Tilled Soils (C6)  
☐ Thin Muck Surface (C7)  
☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)  
☐ Sediment Deposits (B2) (Riverine)  
☐ Drift Deposits (B3) (Riverine)  
☐ Drainage Patterns (B10)  
☐ Dry-Season Water Table (C2)  
☐ Crayfish Burrows (C8)  
☒ Saturation Visible on Aerial Imag.(C9)  
☐ Shallow Aquitard (D3)  
☒ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_  
Water Table Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_  
Saturation Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_  
(includes capillary fringe)

**Wetland Hydrology Present?** Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

Due to sampling during dry season, could not fully evaluate hydrology. Past Aerial imagery shows this area is saturated during a substantial portion of the year.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 4/30/2013  
 Applicant/Owner: UDOT State: UT Map/Sheet: 17 Sampling Point: 25-W-201304301345  
 Investigators: Mike Perkins Nate Nichols Section, Township, Range S 25 T 3 R 1  
 Landform (hillslope, terrace, etc.): Depression Local Relief (concave, convex, none): None Slope(%) 2  
 Subregion (LRR): LRR D Lat: 40.965048 Long: -111.907169 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Woods Cross silty clay loam, drained, 0 to 3 percent slopes NWI Classification: PEMC  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No        (If No, explain in Remarks)  
 Are Vegetation       , Soil       , Hydrology       , significantly disturbed? Are "Normal Circumstances" present? Yes X No         
 Are Vegetation       , Soil       , Hydrology       , naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No <u>      </u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No <u>      </u> <b>Wetland ID:</b> <u>25-W-17</u>
Hydric Soil Present? Yes <u>X</u> No <u>      </u>	
Wetland Hydrology Present? Yes <u>X</u> No <u>      </u>	

Remarks:  
 Sampling point is a wetland in lower portion of grazed pasture where swale feature is fed by a flowing well.

## VEGETATION— Use scientific names of plants.

**Absolute % Cover** **Dominant Species** **Indicator Status**

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

Eleocharis palustris	35	Y	OBL
Puccinellia nuttalliana	25	Y	FACW
Carex nebrascensis	20	Y	OBL
Ranunculus cymbalaria	10	N	OBL
Taraxacum officinale	1	N	FACU
	91	=Total Cover	

### Vine Stratum

## Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 3 (A)  
 Total Number of Dominant Species Across all Strata: 3 (B)  
 Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

## Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>65</u>	x 1 = <u>65</u>
FACW species <u>25</u>	x 2 = <u>50</u>
FAC species <u>0</u>	x 3 = <u>0</u>
FACU species <u>1</u>	x 4 = <u>4</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>91</u> (A)	<u>119</u> (B)
Prevalence Index = B/A= <u>1.31</u>	

## Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
 Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No       

% Bare Ground in Herb Stratum 10 % Cover of Biotic Crust 0

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation is strongly hydrophytic.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)**

Depth (inches)	Matrix			Redox Features				Texture	Remarks
	Color (moist)		%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 6	10YR	2/ 1	90	5YR 4/6	10	C	PL	SILTY CLAY LOAM	
6 to 17	GLE Y 1	4/ N	70	5YR 4/6	30	C	PL	SILTY CLAY LOAM	Concentrations in Matrix and PL

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)                   |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)               |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)           |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)           |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input type="checkbox"/> Depleted Matrix (F3)               |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input checked="" type="checkbox"/> Redox Dark Surface (F6) |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7)         |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)             |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)                  |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |   |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)  
☐ 2 cm Muck (A10) (LRR B)  
☐ Reduced Vertic (F18)  
☐ Red Parent Material (TF2)  
☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes X No \_\_\_\_\_

Remarks:  
Profile meets F6 indicator.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input checked="" type="checkbox"/> Surface Water (A1)             | <input type="checkbox"/> Salt Crust (B11)                              |
| <input checked="" type="checkbox"/> High Water Table (A2)          | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input checked="" type="checkbox"/> Saturation (A3)                | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)  
☐ Sediment Deposits (B2) (Riverine)  
☐ Drift Deposits (B3) (Riverine)  
☒ Drainage Patterns (B10)  
☐ Dry-Season Water Table (C2)  
☐ Crayfish Burrows (C8)  
☐ Saturation Visible on Aerial Imag.(C9)  
☐ Shallow Aquitard (D3)  
☒ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present?	Yes	<u>X</u>	No	_____	Depth (inches):	<u>0-1</u>
Water Table Present?	Yes	<u>X</u>	No	_____	Depth (inches):	<u>10</u>
Saturation Present?	Yes	<u>X</u>	No	_____	Depth (inches):	<u>0</u>

(includes capillary fringe)

**Wetland Hydrology Present?** Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:  
Wetland Hydrology present.

# WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: WDC MP-09282016-3-OUT City/County: Davis County Sampling Date: 9/28/2016  
 Applicant/Owner: UDOT State: Utah Sampling Point: MP-09282016  
 Investigator(s): MP Section, Township, Range: 26 3N 1W  
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): convex Slope (%): 2%  
 Subregion (LRR): D Lat: 40.96460964 Long: -111.9174371 Datum: D WGS 1983  
 Soil Map Unit Name: Pintailake-Eimarsh-Playas complex, 0 to 1 percent slopes NWI classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Hydric Soil Present? Yes _____ No _____	
Wetland Hydrology Present? Yes _____ No _____	
Remarks: Upland vegetation. Didn't sample soils.	

## VEGETATION – Use scientific names of plants.

<b>Tree Stratum</b> (Plot size: _____) 1. _____ 2. _____ 3. _____ 4. _____ _____ = Total Cover <b>Sapling/Shrub Stratum</b> (Plot size: _____) 1. _____ 2. _____ 3. _____ 4. _____ 5. _____ _____ = Total Cover <b>Herb Stratum</b> (Plot size: <u>5 ft. radius</u> ) 1. <u>Hordeum pusillum</u> 30% Yes FACU 2. <u>Bromus arvensis</u> 25% Yes FACU 3. <u>Cichorium intybus</u> 20% Yes FACU 4. <u>Hordeum jubatum</u> 5% No FAC 5. _____ 6. _____ 7. _____ 8. _____ _____ 80% = Total Cover <b>Woody Vine Stratum</b> (Plot size: _____) 1. _____ 2. _____ _____ = Total Cover % Bare Ground in Herb Stratum <u>25%</u> % Cover of Biotic Crust _____	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B) <b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species <u>5</u> x 3 = <u>15</u> FACU species <u>75</u> x 4 = <u>300</u> UPL species _____ x 5 = _____ Column Totals: <u>80</u> (A) <u>315</u> (B) Prevalence Index = B/A = <u>3.9</u> <b>Hydrophytic Vegetation Indicators:</b> ___ Dominance Test is >50% ___ Prevalence Index is ≤3.0 <sup>1</sup> ___ Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. <b>Hydrophytic Vegetation Present?</b> Yes _____ No <input checked="" type="checkbox"/>
Remarks:	



## SOIL

Sampling Point: MP-0928

[illegible]

## HYDROLOGY

Wetland Hydrology Indicators:		
Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (2 or more required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) ( <b>Riverine</b> )
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) ( <b>Riverine</b> )
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) ( <b>Riverine</b> )
<input type="checkbox"/> Water Marks (B1) ( <b>Nonriverine</b> )	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) ( <b>Nonriverine</b> )	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3) ( <b>Nonriverine</b> )	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present?    Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present?    Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present?    Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		
No indicators observed.		

# WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: WDC MP-09282016-2-IN City/County: Davis County Sampling Date: 9/28/2016  
 Applicant/Owner: UDOT State: Utah Sampling Point: MP-09282016  
 Investigator(s): MP Section, Township, Range: 26 3N 1W  
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): none Slope (%): 0%  
 Subregion (LRR): D Lat: 40.9641044 Long: -111.9160531 Datum: D WGS 1983  
 Soil Map Unit Name: Parleys loam, 1 to 3 percent slopes NWI classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology ☒ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____	
Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	
Remarks: Depressional wetland assumed to have hydrology earlier in the growing season.	

## VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)  Total Number of Dominant Species Across All Strata: <u>2</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
_____ = Total Cover				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B)  Prevalence Index = B/A = _____
<b>Sapling/Shrub Stratum (Plot size: _____)</b> 1. _____ 2. _____ 3. _____ 4. _____ 5. _____ _____ = Total Cover				
<b>Herb Stratum (Plot size: <u>5 ft. radius</u>)</b> 1. <u>Polypogon monspeliensis</u> 35% Yes FACW 2. <u>Lepidium latifolium</u> 30% Yes FAC 3. <u>Dipsacus fullonum</u> 5% FAC 4. _____ 5. _____ 6. _____ 7. _____ 8. _____ _____ = Total Cover				
<b>Woody Vine Stratum (Plot size: _____)</b> 1. _____ 2. _____ _____ = Total Cover				
% Bare Ground in Herb Stratum <u>35%</u> % Cover of Biotic Crust _____				
Remarks:				<b>Hydrophytic Vegetation Indicators:</b> ___ Dominance Test is >50% ___ Prevalence Index is ≤3.0 <sup>1</sup> ___ Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No _____				

# SOIL

Sampling Point: MP-092824

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-11	10YR 3/2	100%					SiClLoam	
11-18	10YR 6/2	65%	10YR 6/6	5%	C	M	SiClLoam	
	10YR 3/2	30%						

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) (**LRR C**)
- ☐ 1 cm Muck (A9) (**LRR D**)
- ☒ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)

- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- ☐ 1 cm Muck (A9) (**LRR C**)
- ☐ 2 cm Muck (A10) (**LRR B**)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes ☒ No ☐

Remarks:

# HYDROLOGY

**Wetland Hydrology Indicators:**

**Primary Indicators (minimum of one required; check all that apply)**

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1) (**Nonriverine**)
- ☐ Sediment Deposits (B2) (**Nonriverine**)
- ☐ Drift Deposits (B3) (**Nonriverine**)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)

- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

**Secondary Indicators (2 or more required)**

- ☐ Water Marks (B1) (**Riverine**)
- ☐ Sediment Deposits (B2) (**Riverine**)
- ☐ Drift Deposits (B3) (**Riverine**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☒ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present? Yes ☐ No ☒ Depth (inches): \_\_\_\_\_

Water Table Present? Yes ☐ No ☒ Depth (inches): \_\_\_\_\_

Saturation Present? (includes capillary fringe) Yes ☐ No ☐ Depth (inches): \_\_\_\_\_

**Wetland Hydrology Present?** Yes ☐ No ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Dry time of year for seasonal hydrology; likely present earlier in the season.

# WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: WDC MP-09282016-2-OUT City/County: Davis County Sampling Date: 9/28/2016  
 Applicant/Owner: UDOT State: Utah Sampling Point: MP-09282016  
 Investigator(s): MP Section, Township, Range: 26 3N 1W  
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): convex Slope (%): 2%  
 Subregion (LRR): D Lat: 40.96417343 Long: -111.9159553 Datum: D WGS 1983  
 Soil Map Unit Name: Parleys loam, 1 to 3 percent slopes NWI classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Hydric Soil Present? Yes _____ No _____	
Wetland Hydrology Present? Yes _____ No _____	
Remarks: Upland area just up from wetland boundary. Upland vegetation. Didn't sample soils.	

## VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: _____ (A)  Total Number of Dominant Species Across All Strata: _____ (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
_____ = Total Cover				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species <u>10</u> x 3 = <u>30</u> FACU species _____ x 4 = _____ UPL species <u>40</u> x 5 = <u>200</u> Column Totals: <u>50</u> (A) <u>230</u> (B)  Prevalence Index = B/A = <u>4.6</u>
<b>Sapling/Shrub Stratum (Plot size: _____)</b> 1. _____ 2. _____ 3. _____ 4. _____ 5. _____ _____ = Total Cover				
<b>Herb Stratum (Plot size: <u>5 ft. radius</u>)</b> 1. <u>Thinopyrum intermedium</u> <u>40%</u> Yes NL 2. <u>Dispacus fullonum</u> <u>10%</u> Yes FAC 3. _____ 4. _____ 5. _____ 6. _____ 7. _____ 8. _____ _____ = Total Cover				
<b>Woody Vine Stratum (Plot size: _____)</b> 1. _____ 2. _____ _____ = Total Cover				
% Bare Ground in Herb Stratum <u>60%</u> % Cover of Biotic Crust _____				
Remarks:				<b>Hydrophytic Vegetation Indicators:</b> ___ Dominance Test is >50% ___ Prevalence Index is ≤3.0 <sup>1</sup> ___ Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
<b>Hydrophytic Vegetation Present?</b> Yes _____ No <input checked="" type="checkbox"/>				



## SOIL

Sampling Point: MP-09282+

[illegible]

## HYDROLOGY

Wetland Hydrology Indicators:			
Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (2 or more required)	
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) ( <b>Riverine</b> )	
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) ( <b>Riverine</b> )	
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) ( <b>Riverine</b> )	
<input type="checkbox"/> Water Marks (B1) ( <b>Nonriverine</b> )	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)	
<input type="checkbox"/> Sediment Deposits (B2) ( <b>Nonriverine</b> )	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)	
<input type="checkbox"/> Drift Deposits (B3) ( <b>Nonriverine</b> )	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Crayfish Burrows (C8)	
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)	
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)	
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> FAC-Neutral Test (D5)	
<b>Field Observations:</b> Surface Water Present?    Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present?    Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present?    Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Remarks:			
No indicators observed.			

# WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: WDC MP-09282016-3-IN City/County: Davis County Sampling Date: 9/28/2016  
 Applicant/Owner: UDOT State: Utah Sampling Point: MP-09282016  
 Investigator(s): MP Section, Township, Range: 26 3N 1W  
 Landform (hillslope, terrace, etc.): terrace/depression Local relief (concave, convex, none): concave Slope (%): 1%  
 Subregion (LRR): D Lat: 40.96447844 Long: -111.9175036 Datum: D WGS 1983  
 Soil Map Unit Name: Pintailake-Eimarsh-Playas complex, 0 to 1 percent slopes NWI classification: \_\_\_\_\_  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____	
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	
Remarks:  Emergent marsh wetland.	

## VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)  Total Number of Dominant Species Across All Strata: <u>1</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
_____ = Total Cover				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B)  Prevalence Index = B/A = _____
<b>Sapling/Shrub Stratum</b> (Plot size: _____)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
_____ = Total Cover				<b>Hydrophytic Vegetation Indicators:</b> <input checked="" type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.  <b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No _____
<b>Herb Stratum</b> (Plot size: <u>5 ft. radius</u> )				
1. <u>Phragmites australis</u>	<u>60%</u>	<u>Yes</u>	<u>FACW</u>	
2. <u>Distichlis spicata</u>	<u>10%</u>		<u>FAC</u>	
3. <u>Hordeum jubatum</u>	<u>10%</u>		<u>FAC</u>	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
_____ = Total Cover				
<b>Woody Vine Stratum</b> (Plot size: _____)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
_____ = Total Cover				
% Bare Ground in Herb Stratum <u>20%</u> % Cover of Biotic Crust _____				
Remarks:				

# SOIL

Sampling Point: MP-092829

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-5	7.5YR 5/3	85%	7.5YR 5/6	5%	C	M	Sand	
	10YR 4/2	10%						
5-18	7.5YR 4/2	70%	7.5YR 5/6	10	C	M	SaLoam	
	7.5YR 3/3	20%						

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

- |  |  |
|--|--|
| <input type="checkbox"/> Histosol (A1)                           | <input checked="" type="checkbox"/> Sandy Redox (S5) |
| <input type="checkbox"/> Histic Epipedon (A2)                    | <input type="checkbox"/> Stripped Matrix (S6)        |
| <input type="checkbox"/> Black Histic (A3)                       | <input type="checkbox"/> Loamy Mucky Mineral (F1)    |
| <input type="checkbox"/> Hydrogen Sulfide (A4)                   | <input type="checkbox"/> Loamy Gleyed Matrix (F2)    |
| <input type="checkbox"/> Stratified Layers (A5) ( <b>LRR C</b> ) | <input type="checkbox"/> Depleted Matrix (F3)        |
| <input type="checkbox"/> 1 cm Muck (A9) ( <b>LRR D</b> )         | <input type="checkbox"/> Redox Dark Surface (F6)     |
| <input type="checkbox"/> Depleted Below Dark Surface (A11)       | <input type="checkbox"/> Depleted Dark Surface (F7)  |
| <input type="checkbox"/> Thick Dark Surface (A12)                | <input type="checkbox"/> Redox Depressions (F8)      |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)                | <input type="checkbox"/> Vernal Pools (F9)           |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)                |  |

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- ☐ 1 cm Muck (A9) (**LRR C**)
- ☐ 2 cm Muck (A10) (**LRR B**)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present? Yes ☒ No ☐**

Remarks:

# HYDROLOGY

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                            | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                         | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input checked="" type="checkbox"/> Saturation (A3)                    | <input type="checkbox"/> Aquatic Invertebrates (B13)                   |
| <input type="checkbox"/> Water Marks (B1) ( <b>Nonriverine</b> )       | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) ( <b>Nonriverine</b> ) | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) ( <b>Nonriverine</b> )    | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                      | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)     | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                     | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) (**Riverine**)
- ☐ Sediment Deposits (B2) (**Riverine**)
- ☐ Drift Deposits (B3) (**Riverine**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present? Yes ☐ No ☒ Depth (inches): \_\_\_\_\_

Water Table Present? Yes ☐ No ☒ Depth (inches): \_\_\_\_\_

Saturation Present? Yes ☒ No ☐ Depth (inches): 4"  
(includes capillary fringe)

**Wetland Hydrology Present? Yes ☒ No ☐**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

# WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: WDC MP-09282016-4-IN City/County: Davis County Sampling Date: 9/28/2016  
 Applicant/Owner: UDOT State: Utah Sampling Point: MP-09282016  
 Investigator(s): MP Section, Township, Range: 26 3N 1W  
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): concave Slope (%): 1%  
 Subregion (LRR): D Lat: 40.96477026 Long: -111.9169769 Datum: D WGS 1983  
 Soil Map Unit Name: Iron-ton-Draper complex, 0 to 3 percent slopes NWI classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____	
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	
Remarks: Seasonal depressional wetland with evidence of ponding.	

## VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
_____ = Total Cover				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
<b>Sapling/Shrub Stratum</b> (Plot size: _____)	_____	_____	_____	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	<b>Hydrophytic Vegetation Indicators:</b> <input checked="" type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
_____ = Total Cover				<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
<b>Herb Stratum</b> (Plot size: <u>5 ft. radius</u> )	_____	_____	_____	
1. <u>Alopecurus geniculatus</u>	<u>60%</u>	<u>Yes</u>	<u>OBL</u>	<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No _____
2. <u>Distichlis spicata</u>	<u>10%</u>	_____	<u>FAC</u>	
3. <u>Phleum pratense</u>	<u>10%</u>	_____	<u>FACU</u>	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
_____ = Total Cover				
<b>Woody Vine Stratum</b> (Plot size: _____)	_____	_____	_____	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
_____ = Total Cover				
% Bare Ground in Herb Stratum <u>20%</u>	% Cover of Biotic Crust _____			
Remarks:				



## SOIL

Sampling Point: MP-092824**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-3	10YR 3/2	100%						
3-18	10YR 3/2	80%	10YR 5/2	15%	D	M	SiClLoam	
			10R 3/6	5%	C	M	SiLoam	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

☐ Histosol (A1)  
☐ Histic Epipedon (A2)  
☐ Black Histic (A3)  
☐ Hydrogen Sulfide (A4)  
☐ Stratified Layers (A5) (**LRR C**)  
☐ 1 cm Muck (A9) (**LRR D**)  
☐ Depleted Below Dark Surface (A11)  
☐ Thick Dark Surface (A12)  
☐ Sandy Mucky Mineral (S1)  
☐ Sandy Gleyed Matrix (S4)

☐ Sandy Redox (S5)  
☐ Stripped Matrix (S6)  
☐ Loamy Mucky Mineral (F1)  
☐ Loamy Gleyed Matrix (F2)  
☐ Depleted Matrix (F3)  
☒ Redox Dark Surface (F6)  
☐ Depleted Dark Surface (F7)  
☐ Redox Depressions (F8)  
☐ Vernal Pools (F9)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

☐ 1 cm Muck (A9) (**LRR C**)  
☐ 2 cm Muck (A10) (**LRR B**)  
☐ Reduced Vertic (F18)  
☐ Red Parent Material (TF2)  
☐ Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes ☒ No ☐

Remarks:

## HYDROLOGY

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one required; check all that apply)

☐ Surface Water (A1)  
☐ High Water Table (A2)  
☐ Saturation (A3)  
☐ Water Marks (B1) (**Nonriverine**)  
☐ Sediment Deposits (B2) (**Nonriverine**)  
☐ Drift Deposits (B3) (**Nonriverine**)  
☒ Surface Soil Cracks (B6)  
☐ Inundation Visible on Aerial Imagery (B7)  
☐ Water-Stained Leaves (B9)

☐ Salt Crust (B11)  
☐ Biotic Crust (B12)  
☐ Aquatic Invertebrates (B13)  
☐ Hydrogen Sulfide Odor (C1)  
☐ Oxidized Rhizospheres along Living Roots (C3)  
☐ Presence of Reduced Iron (C4)  
☐ Recent Iron Reduction in Tilled Soils (C6)  
☐ Thin Muck Surface (C7)  
☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

☐ Water Marks (B1) (**Riverine**)  
☐ Sediment Deposits (B2) (**Riverine**)  
☐ Drift Deposits (B3) (**Riverine**)  
☐ Drainage Patterns (B10)  
☐ Dry-Season Water Table (C2)  
☐ Crayfish Burrows (C8)  
☐ Saturation Visible on Aerial Imagery (C9)  
☐ Shallow Aquitard (D3)  
☒ FAC-Neutral Test (D5)

**Field Observations:**Surface Water Present? Yes ☐ No ☒ Depth (inches): \_\_\_\_\_Water Table Present? Yes ☐ No ☒ Depth (inches): \_\_\_\_\_Saturation Present? Yes ☐ No ☒ Depth (inches): \_\_\_\_\_  
(includes capillary fringe)**Wetland Hydrology Present?** Yes ☒ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Dry time of year for seasonal wetland.

# WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: WDC MP-09282016-4-OUT City/County: Davis County Sampling Date: 9/28/2016  
 Applicant/Owner: UDOT State: Utah Sampling Point: MP-09282016  
 Investigator(s): MP Section, Township, Range: 26 3N 1W  
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): none Slope (%): 0%  
 Subregion (LRR): D Lat: 40.96468073 Long: -111.9168855 Datum: D WGS 1983  
 Soil Map Unit Name: Iron-ton-Draper complex, 0 to 3 percent slopes NWI classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Hydric Soil Present? Yes _____ No _____	
Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	
Remarks: Upland vegetation. Didn't sample soils.	

## VEGETATION – Use scientific names of plants.

<b>Tree Stratum</b> (Plot size: _____) 1. _____ 2. _____ 3. _____ 4. _____ _____ = Total Cover <b>Sapling/Shrub Stratum</b> (Plot size: _____) 1. _____ 2. _____ 3. _____ 4. _____ 5. _____ _____ = Total Cover <b>Herb Stratum</b> (Plot size: <u>5 ft. radius</u> ) 1. <u>Helianthus annuus</u> 40% Yes FACU 2. <u>Atriplex micrantha</u> 35% Yes NL 3. <u>Hordeum jubatum</u> 10% FAC 4. _____ 5. _____ 6. _____ 7. _____ 8. _____ _____ 85% = Total Cover <b>Woody Vine Stratum</b> (Plot size: _____) 1. _____ 2. _____ _____ = Total Cover % Bare Ground in Herb Stratum <u>25%</u> % Cover of Biotic Crust _____	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B) <b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species <u>10</u> x 3 = <u>30</u> FACU species <u>40</u> x 4 = <u>160</u> UPL species <u>35</u> x 5 = <u>175</u> Column Totals: <u>85</u> (A) <u>365</u> (B) Prevalence Index = B/A = <u>4.3</u> <b>Hydrophytic Vegetation Indicators:</b> ___ Dominance Test is >50% ___ Prevalence Index is ≤3.0 <sup>1</sup> ___ Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. <b>Hydrophytic Vegetation Present?</b> Yes _____ No <input checked="" type="checkbox"/>
Remarks:	

## SOIL

Sampling Point: MP-09282+

[illegible]

## HYDROLOGY

Wetland Hydrology Indicators:			
Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (2 or more required)	
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) ( <b>Riverine</b> )	
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) ( <b>Riverine</b> )	
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) ( <b>Riverine</b> )	
<input type="checkbox"/> Water Marks (B1) ( <b>Nonriverine</b> )	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)	
<input type="checkbox"/> Sediment Deposits (B2) ( <b>Nonriverine</b> )	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)	
<input type="checkbox"/> Drift Deposits (B3) ( <b>Nonriverine</b> )	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Crayfish Burrows (C8)	
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)	
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)	
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> FAC-Neutral Test (D5)	
<b>Field Observations:</b> Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Remarks:			
No indicators observed.			

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 6/25/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 15 Sampling Point: 24-N-201206251140  
 Investigators: Ron Kass Paul Dawson Section, Township, Range S 26 T 3 R 1  
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): Concave Slope(%) 0  
 Subregion (LRR): LRR D Lat: 40.9689058655 Long: -111.925636463 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Chance-Ironton complex, 0 to 3 percent slopes NWI Classification: \_\_\_\_\_  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil X, Hydrology X, significantly disturbed? Are "Normal Circumstances" present? Yes \_\_\_\_\_ No X  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> <b>Wetland ID:</b> _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	

Remarks:  
 depression in formerly irrigated pasture currently being filled. No hydrology, no soils, vegetation in transition.

## VEGETATION— Use scientific names of plants.

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
Hordeum jubatum	40	Y	FAC
Distichlis spicata	20	Y	FAC
Bromus japonicus	10	N	UPL
Lepidium perfoliatum	10	N	FACU
Grindelia squarrosa	5	N	FACU
Cirsium vulgare	1	N	FACU
	86	=Total Cover	

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across all Strata: 2 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>0</u>	x 2 = <u>0</u>
FAC species <u>60</u>	x 3 = <u>180</u>
FACU species <u>16</u>	x 4 = <u>64</u>
UPL species <u>10</u>	x 5 = <u>50</u>
Column Totals: <u>86</u> (A)	<u>294</u> (B)

Prevalence Index = B/A = 3.42

### Hydrophytic Vegetation Indicators:

\_\_\_\_\_ Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
 \_\_\_\_\_ Prevalence Index ≤ 3.0  
 \_\_\_\_\_ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 \_\_\_\_\_ Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No \_\_\_\_\_

% Bare Ground in Herb Stratum \_\_\_\_\_ % Cover of Biotic Crust \_\_\_\_\_

Remarks: (Include photo numbers here or on a separate sheet.)  
 vegetation in transition



**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 18	10YR	4.0 / 1		100			SANDY LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)           |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)       |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)   |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)   |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input type="checkbox"/> Depleted Matrix (F3)       |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)     |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)          |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |   |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- |   |
|---|
| <input type="checkbox"/> 1 cm Muck (A9) (LRR C)     |
| <input type="checkbox"/> 2 cm Muck (A10) (LRR B)    |
| <input type="checkbox"/> Reduced Vertic (F18)       |
| <input type="checkbox"/> Red Parent Material (TF2)  |
| <input type="checkbox"/> Other (Explain in Remarks) |

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No X

## Remarks:

Soil fails to indicate hydric conditions.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- |   |
|---|
| <input type="checkbox"/> Water Marks (B1) (Riverine)            |
| <input type="checkbox"/> Sediment Deposits (B2) (Riverine)      |
| <input type="checkbox"/> Drift Deposits (B3) (Riverine)         |
| <input type="checkbox"/> Drainage Patterns (B10)                |
| <input type="checkbox"/> Dry-Season Water Table (C2)            |
| <input type="checkbox"/> Crayfish Burrows (C8)                  |
| <input type="checkbox"/> Saturation Visible on Aerial Imag.(C9) |
| <input type="checkbox"/> Shallow Aquitard (D3)                  |
| <input type="checkbox"/> FAC-Neutral Test (D5)                  |

**Field Observations:**Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Water Table Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Saturation Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_

(includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

no hydrology

# WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: WDC MP-09272016-2-IN City/County: Davis County Sampling Date: 9/27/2016  
 Applicant/Owner: UDOT State: Utah Sampling Point: MP-09272016  
 Investigator(s): MP Section, Township, Range: 27 3N 1W  
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): concave Slope (%): 1%  
 Subregion (LRR): D Lat: 40.96949786 Long: -111.9384793 Datum: D WGS 1983  
 Soil Map Unit Name: Saltair-Playas-Lasil complex, 0 to 1 percent slopes NWI classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____	
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	
Remarks: Small emergent marsh separated by uplands but adjacent to Great Salt Lake wetlands complex.	

## VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
_____ = Total Cover				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
<b>Sapling/Shrub Stratum (Plot size: _____)</b> 1. _____ 2. _____ 3. _____ 4. _____ 5. _____ _____ = Total Cover				
<b>Herb Stratum (Plot size: <u>5 ft. radius</u>)</b> 1. <u>Phragmites australis</u> <u>140%</u> <u>Yes</u> <u>FACW</u> 2. <u>Atriplex micrantha</u> <u>5%</u> <u></u> <u>NL</u> 3. _____ 4. _____ 5. _____ 6. _____ 7. _____ 8. _____ _____ = Total Cover				
<b>Woody Vine Stratum (Plot size: _____)</b> 1. _____ 2. _____ _____ = Total Cover				
% Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____				
Remarks:				<b>Hydrophytic Vegetation Indicators:</b> <input checked="" type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
Remarks:				<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No _____

# SOIL

Sampling Point: MP-092724

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-4	10YR 4/2	90%	7.5YR 6/2	10%	D	M	SaLoam	
4-10	10YR 4/2	95%	5YR 4/6	5%	C	PL	SaLoam	
10-19	10YR 4/2	80%	5YR 4/6	20%	C	M	SaLoam	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

- |  |  |
|--|--|
| <input type="checkbox"/> Histosol (A1)                           | <input checked="" type="checkbox"/> Sandy Redox (S5) |
| <input type="checkbox"/> Histic Epipedon (A2)                    | <input type="checkbox"/> Stripped Matrix (S6)        |
| <input type="checkbox"/> Black Histic (A3)                       | <input type="checkbox"/> Loamy Mucky Mineral (F1)    |
| <input type="checkbox"/> Hydrogen Sulfide (A4)                   | <input type="checkbox"/> Loamy Gleyed Matrix (F2)    |
| <input type="checkbox"/> Stratified Layers (A5) ( <b>LRR C</b> ) | <input type="checkbox"/> Depleted Matrix (F3)        |
| <input type="checkbox"/> 1 cm Muck (A9) ( <b>LRR D</b> )         | <input type="checkbox"/> Redox Dark Surface (F6)     |
| <input type="checkbox"/> Depleted Below Dark Surface (A11)       | <input type="checkbox"/> Depleted Dark Surface (F7)  |
| <input type="checkbox"/> Thick Dark Surface (A12)                | <input type="checkbox"/> Redox Depressions (F8)      |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)                | <input type="checkbox"/> Vernal Pools (F9)           |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)                |  |

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- ☐ 1 cm Muck (A9) (**LRR C**)
- ☐ 2 cm Muck (A10) (**LRR B**)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present? Yes ☒ No ☐**

Remarks:

# HYDROLOGY

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one required; check all that apply)

- |  |   |
|--|---|
| <input type="checkbox"/> Surface Water (A1)                            | <input type="checkbox"/> Salt Crust (B11)   |
| <input type="checkbox"/> High Water Table (A2)                         | <input type="checkbox"/> Biotic Crust (B12)                                       |
| <input type="checkbox"/> Saturation (A3)                               | <input type="checkbox"/> Aquatic Invertebrates (B13)                              |
| <input type="checkbox"/> Water Marks (B1) ( <b>Nonriverine</b> )       | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                               |
| <input type="checkbox"/> Sediment Deposits (B2) ( <b>Nonriverine</b> ) | <input checked="" type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) ( <b>Nonriverine</b> )    | <input type="checkbox"/> Presence of Reduced Iron (C4)                            |
| <input type="checkbox"/> Surface Soil Cracks (B6)                      | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)               |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)     | <input type="checkbox"/> Thin Muck Surface (C7)                                   |
| <input type="checkbox"/> Water-Stained Leaves (B9)                     | <input type="checkbox"/> Other (Explain in Remarks)                               |

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) (**Riverine**)
- ☐ Sediment Deposits (B2) (**Riverine**)
- ☐ Drift Deposits (B3) (**Riverine**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☒ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present? Yes ☐ No ☒ Depth (inches): \_\_\_\_\_

Water Table Present? Yes ☐ No ☒ Depth (inches): \_\_\_\_\_

Saturation Present? Yes ☒ No ☐ Depth (inches): 15"  
(includes capillary fringe)

**Wetland Hydrology Present? Yes ☒ No ☐**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

# WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: WDC MP-09272016-2-OUT City/County: Davis County Sampling Date: 9/27/2016  
 Applicant/Owner: UDOT State: Utah Sampling Point: MP-09272016  
 Investigator(s): MP Section, Township, Range: 27 3N 1W  
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): none Slope (%): 0%  
 Subregion (LRR): D Lat: 40.96953366 Long: -111.9385583 Datum: D WGS 1983  
 Soil Map Unit Name: Saltair-Playas-Lasil complex, 0 to 1 percent slopes NWI classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Hydric Soil Present? Yes _____ No _____	
Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	
Remarks:  Upland vegetation. Didn't sample soils.	

## VEGETATION – Use scientific names of plants.

<b>Tree Stratum</b> (Plot size: _____) 1. _____ 2. _____ 3. _____ 4. _____ _____ = Total Cover <b>Sapling/Shrub Stratum</b> (Plot size: _____) 1. _____ 2. _____ 3. _____ 4. _____ 5. _____ _____ = Total Cover <b>Herb Stratum</b> (Plot size: <u>5 ft. radius</u> ) 1. <u>Bromus arvensis</u> 30% Yes FACU 2. <u>Hordeum pusillum</u> 35% Yes FACU 3. <u>Bromus tectorum</u> 5% NL 4. <u>Lepidium perfoliatum</u> 5% FACU 5. _____ 6. _____ 7. _____ 8. _____ _____ 75% = Total Cover <b>Woody Vine Stratum</b> (Plot size: _____) 1. _____ 2. _____ _____ = Total Cover % Bare Ground in Herb Stratum <u>30%</u> % Cover of Biotic Crust _____	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B) <b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species <u>70</u> x 4 = <u>280</u> UPL species <u>5</u> x 5 = <u>25</u> Column Totals: <u>75</u> (A) <u>305</u> (B) Prevalence Index = B/A = <u>4.1</u> <b>Hydrophytic Vegetation Indicators:</b> ___ Dominance Test is >50% ___ Prevalence Index is ≤3.0 <sup>1</sup> ___ Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. <b>Hydrophytic Vegetation Present?</b> Yes _____ No <input checked="" type="checkbox"/>
Remarks:	



## SOIL

Sampling Point: MP-09272 

[illegible]

## HYDROLOGY

Wetland Hydrology Indicators:		
Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (2 or more required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) ( <b>Riverine</b> )
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) ( <b>Riverine</b> )
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) ( <b>Riverine</b> )
<input type="checkbox"/> Water Marks (B1) ( <b>Nonriverine</b> )	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) ( <b>Nonriverine</b> )	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3) ( <b>Nonriverine</b> )	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present?    Yes <input type="checkbox"/> No <input type="checkbox"/> Depth (inches): _____ Water Table Present?    Yes <input type="checkbox"/> No <input type="checkbox"/> Depth (inches): _____ Saturation Present?    Yes <input type="checkbox"/> No <input type="checkbox"/> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		
No indicators observed.		

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 7/23/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 14 Sampling Point: 22-N-201207231457  
 Investigators: Trent Toler Section, Township, Range S 22 T 3 R 1  
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): Concave Slope(%) 0  
 Subregion (LRR): LRR D Lat: 40.9808676172 Long: -111.93822874 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Warm Springs fine sandy loam, saline, sodic, 0 to 1 percent slopes, chann NWI Classification: \_\_\_\_\_  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil X, Hydrology X, significantly disturbed? Are "Normal Circumstances" present? Yes \_\_\_\_\_ No X  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology X, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> <b>Wetland ID:</b> _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	

Remarks:  
 Low spot in horse pasture, now drying up. 2 other polygons nearby are similar but have been less wet.

## VEGETATION— Use scientific names of plants.

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
Hordeum jubatum	90	Y	FAC
Plantago major	5	N	FAC
Puccinellia nuttalliana	4	N	FACW
Phragmites australis	3	N	FACW
Rumex crispus	3	N	FAC
Trifolium fragiferum	3	N	FACU
	108	=Total Cover	

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across all Strata: 1 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>7</u>	x 2 = <u>14</u>
FAC species <u>98</u>	x 3 = <u>294</u>
FACU species <u>3</u>	x 4 = <u>12</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>108</u> (A)	<u>320</u> (B)

Prevalence Index = B/A = 2.96

### Hydrophytic Vegetation Indicators:

\_\_\_\_ Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
 \_\_\_\_ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 \_\_\_\_ Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No \_\_\_\_\_

% Bare Ground in Herb Stratum 0 % Cover of Biotic Crust

Remarks: (Include photo numbers here or on a separate sheet.)

Heavy and thick Hordeum, indicates ponding water.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)**

Depth (inches)	Matrix			Redox Features				Texture	Remarks
	Color (moist)		%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
to	2.5Y	5.0 / 2	45					SANDY CLAY LOAM	
to	10YR	3.0 / 2	10					SANDY CLAY LOAM	
0 to 8	10YR	2.0 / 2	100	10YR 7/3	2	D	M	SANDY CLAY LOAM	
8 to 18	10YR	4.0 / 2	30	5YR 7/3	15	D	M	SANDY CLAY LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)           |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)       |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)   |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)   |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input type="checkbox"/> Depleted Matrix (F3)       |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)     |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)          |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |   |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- |   |
|---|
| <input type="checkbox"/> 1 cm Muck (A9) (LRR C)     |
| <input type="checkbox"/> 2 cm Muck (A10) (LRR B)    |
| <input type="checkbox"/> Reduced Vertic (F18)       |
| <input type="checkbox"/> Red Parent Material (TF2)  |
| <input type="checkbox"/> Other (Explain in Remarks) |

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No X

## Remarks:

Complex mix 8-17 in, may have been filled, possibly during construction. Fails to meet any hydric indicator.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- |   |
|---|
| <input type="checkbox"/> Water Marks (B1) (Riverine)            |
| <input type="checkbox"/> Sediment Deposits (B2) (Riverine)      |
| <input type="checkbox"/> Drift Deposits (B3) (Riverine)         |
| <input type="checkbox"/> Drainage Patterns (B10)                |
| <input type="checkbox"/> Dry-Season Water Table (C2)            |
| <input type="checkbox"/> Crayfish Burrows (C8)                  |
| <input type="checkbox"/> Saturation Visible on Aerial Imag.(C9) |
| <input type="checkbox"/> Shallow Aquitard (D3)                  |
| <input type="checkbox"/> FAC-Neutral Test (D5)                  |

**Field Observations:**

Surface Water Present?	Yes _____ No <u>X</u>	Depth (inches):	____
Water Table Present?	Yes _____ No <u>X</u>	Depth (inches):	____
Saturation Present?	Yes _____ No <u>X</u>	Depth (inches):	____

(includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

No hydrology at this time, area looks to have had its hydrology turned off. Sampled at dry time of year.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 6/25/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 15 Sampling Point: 24-N-201206251405  
 Investigators: Donovan Gross Nate Nichols Section, Township, Range S 22 T 3 R 1  
 Landform (hillslope, terrace, etc.): Basin Local Relief (concave, convex, none): None Slope(%) 1  
 Subregion (LRR): \_\_\_\_\_ Lat: 40.9776381299 Long: -111.934736906 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Lakeshore fine sandy loam, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> Wetland ID: _____
Hydric Soil Present?	Yes _____ No <u>X</u>	
Wetland Hydrology Present?	Yes _____ No <u>X</u>	

Remarks:  
 Sampling point is an upland.

## VEGETATION— Use scientific names of plants.

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
Bromus tectorum	20	Y	UPL
Hordeum jubatum	20	Y	FAC
Cardaria draba	15	Y	UPL
Thinopyrum ponticum	10	N	UPL
	65	=Total Cover	

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 1 (A)  
 Total Number of Dominant Species Across all Strata: 3 (B)  
 Percent of Dominant Species That are OBL, FACW, or FAC: 33.3% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>0</u>	x 2 = <u>0</u>
FAC species <u>20</u>	x 3 = <u>60</u>
FACU species <u>0</u>	x 4 = <u>0</u>
UPL species <u>45</u>	x 5 = <u>225</u>
Column Totals: <u>65</u> (A)	<u>285</u> (B)
Prevalence Index = B/A= <u>4.38</u>	

### Hydrophytic Vegetation Indicators:

☐ Rapid Test for Hydrophytic Vegetation  
☐ Dominance Test > 50%  
☐ Prevalence Index ≤ 3.0  
☐ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
☐ Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes \_\_\_\_\_ No X

% Bare Ground in Herb Stratum \_\_\_\_\_ % Cover of Biotic Crust \_\_\_\_\_

Remarks: (Include photo numbers here or on a separate sheet.)  
 Upland grasses and weeds.



**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)           |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)       |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)   |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)   |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input type="checkbox"/> Depleted Matrix (F3)       |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)     |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)          |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |   |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)
- ☐ 2 cm Muck (A10) (LRR B)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No X**Remarks:**

Soils not evaluated since vegetation clearly fails.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)
- ☐ Sediment Deposits (B2) (Riverine)
- ☐ Drift Deposits (B3) (Riverine)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

**Field Observations:**Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Water Table Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Saturation Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_

(includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

**Remarks:**

Irrigation to this and connected pastures has stopped; all very dry.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 6/25/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 15 Sampling Point: 24-N-201206251423  
 Investigators: Donovan Gross Nate Nichols Section, Township, Range S 27 T 3 R 1  
 Landform (hillslope, terrace, etc.): Basin Local Relief (concave, convex, none): Concave Slope(%) 1  
 Subregion (LRR): \_\_\_\_\_ Lat: 40.9723518735 Long: -111.935360547 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Airport silt loam, 0 to 2 percent slopes NWI Classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> <b>Wetland ID:</b> _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	

Remarks:  
 Upland, no indicators. No soil pit due to non-hydrophytic vegetation.

## VEGETATION— Use scientific names of plants.

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
Hordeum jubatum	30	Y	FAC
Bromus tectorum	20	Y	UPL
Lepidium perfoliatum	20	Y	FACU
Hordeum pusillum	15	N	FACU
	85	=Total Cover	

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 1 (A)  
 Total Number of Dominant Species Across all Strata: 3 (B)  
 Percent of Dominant Species That are OBL, FACW, or FAC: 33.3% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>0</u>	x 2 = <u>0</u>
FAC species <u>30</u>	x 3 = <u>90</u>
FACU species <u>35</u>	x 4 = <u>140</u>
UPL species <u>20</u>	x 5 = <u>100</u>
Column Totals: <u>85</u> (A)	<u>330</u> (B)
Prevalence Index = B/A= <u>3.88</u>	

### Hydrophytic Vegetation Indicators:

☐ Rapid Test for Hydrophytic Vegetation  
☐ Dominance Test > 50%  
☐ Prevalence Index ≤ 3.0  
☐ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
☐ Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

% Bare Ground in Herb Stratum 15 % Cover of Biotic Crust \_\_\_\_\_

**Hydrophytic Vegetation Present?** Yes \_\_\_\_\_ No X

Remarks: (Include photo numbers here or on a separate sheet.)  
 Dry grasses with upland weeds.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)           |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)       |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)   |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)   |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input type="checkbox"/> Depleted Matrix (F3)       |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)     |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)          |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |   |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- |   |
|---|
| <input type="checkbox"/> 1 cm Muck (A9) (LRR C)     |
| <input type="checkbox"/> 2 cm Muck (A10) (LRR B)    |
| <input type="checkbox"/> Reduced Vertic (F18)       |
| <input type="checkbox"/> Red Parent Material (TF2)  |
| <input type="checkbox"/> Other (Explain in Remarks) |

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No X**Remarks:**

No soil pit due to non-hydrophytic vegetation.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- |   |
|---|
| <input type="checkbox"/> Water Marks (B1) (Riverine)            |
| <input type="checkbox"/> Sediment Deposits (B2) (Riverine)      |
| <input type="checkbox"/> Drift Deposits (B3) (Riverine)         |
| <input type="checkbox"/> Drainage Patterns (B10)                |
| <input type="checkbox"/> Dry-Season Water Table (C2)            |
| <input type="checkbox"/> Crayfish Burrows (C8)                  |
| <input type="checkbox"/> Saturation Visible on Aerial Imag.(C9) |
| <input type="checkbox"/> Shallow Aquitard (D3)                  |
| <input type="checkbox"/> FAC-Neutral Test (D5)                  |

**Field Observations:**Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Water Table Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Saturation Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_

(includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

**Remarks:**

No indicators.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 7/19/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 15 Sampling Point: 24-N-201207191055  
 Investigators: Trent Toler Section, Township, Range S 27 T 3 R 1  
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): None Slope(%) 0  
 Subregion (LRR): LRR D Lat: 40.971880167 Long: -111.934941455 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Airport silt loam, 0 to 2 percent slopes NWI Classification: \_\_\_\_\_  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology X, significantly disturbed? Are "Normal Circumstances" present? Yes \_\_\_\_\_ No X  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology X, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> <b>Wetland ID:</b> _____
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes _____ No <u>X</u>	

Remarks:  
 Abandoned pasture, was well irrigated and this area received lots of water. Water now off, area drying.

## VEGETATION— Use scientific names of plants.

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
Puccinellia nuttalliana	60	Y	FACW
Hordeum jubatum	20	Y	FAC
Lactuca serriola	7	N	FACU
Distichlis spicata	5	N	FAC
Lepidium perfoliatum	5	N	FACU
Atriplex micrantha	2	N	UPL
	99	=Total Cover	

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across all Strata: 2 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>60</u>	x 2 = <u>120</u>
FAC species <u>25</u>	x 3 = <u>75</u>
FACU species <u>12</u>	x 4 = <u>48</u>
UPL species <u>2</u>	x 5 = <u>10</u>
Column Totals: <u>99</u> (A)	<u>253</u> (B)

Prevalence Index = B/A= 2.56

### Hydrophytic Vegetation Indicators:

\_\_\_\_ Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
 \_\_\_\_ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 \_\_\_\_ Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No \_\_\_\_\_

% Bare Ground in Herb Stratum 10 % Cover of Biotic Crust \_\_\_\_\_

Remarks: (Include photo numbers here or on a separate sheet.)

Most species dead or dying, very dry.



**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 3	10YR 3.0/ 3	100					LOAM	
3 to 8	2.5Y 4.0/ 2	95	5Y 6/2	5	D	M	CLAY LOAM	
8 to 11	2.5Y 6.0/ 2	95	7.5YR 6/8	5	C	M	SILTY CLAY LOAM	7.5yr 4/6 2%
11 to 18	5Y 6.0/ 2	90	10YR 5/8	7	C	M	SILTY CLAY LOAM	10YR 7/2 2%

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |  |
|--|--|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)                |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)            |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)        |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)        |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input checked="" type="checkbox"/> Depleted Matrix (F3) |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)         |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7)      |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)          |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)               |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |  |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)  
☐ 2 cm Muck (A10) (LRR B)  
☐ Reduced Vertic (F18)  
☐ Red Parent Material (TF2)  
☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes X No \_\_\_\_\_Remarks:  
Meets F3.**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)  
☐ Sediment Deposits (B2) (Riverine)  
☐ Drift Deposits (B3) (Riverine)  
☐ Drainage Patterns (B10)  
☐ Dry-Season Water Table (C2)  
☐ Crayfish Burrows (C8)  
☐ Saturation Visible on Aerial Imag. (C9)  
☐ Shallow Aquitard (D3)  
☒ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present?	Yes _____ No <u>X</u>	Depth (inches):	____
Water Table Present?	Yes _____ No <u>X</u>	Depth (inches):	____
Saturation Present?	Yes _____ No <u>X</u>	Depth (inches):	____

(includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

no obvious source for hydrology except for irrigation

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 6/26/2013  
 Applicant/Owner: UDOT State: UT Map/Sheet: 14 Sampling Point: 24-N-201306261258  
 Investigators: Mike Perkins Section, Township, Range S 8 T 4 R 2  
 Landform (hillslope, terrace, etc.): Depression Local Relief (concave, convex, none): Concave Slope(%) 3  
 Subregion (LRR): LRR D Lat: 41.096161 Long: -112.085103 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Ford loam, shallow water table, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland?	Yes _____ No <u>X</u>
Hydric Soil Present?	Yes _____ No <u>X</u>		
Wetland Hydrology Present?	Yes _____ No <u>X</u>		Wetland ID: _____

Remarks:  
 Out point, in upland vegetation on banks up from drainage wetland.

## VEGETATION— Use scientific names of plants.

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

Thinopyrum intermedium	60	Y	UPL
Bromus tectorum	10	N	UPL
	70	=Total Cover	

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species  
 That are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant  
 Species Across all Strata: 1 (B)

Percent of Dominant Species  
 That are OBL, FACW, or FAC: 0.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>0</u>	x 2 = <u>0</u>
FAC species <u>0</u>	x 3 = <u>0</u>
FACU species <u>0</u>	x 4 = <u>0</u>
UPL species <u>70</u>	x 5 = <u>350</u>
Column Totals: <u>70</u> (A)	<u>350</u> (B)

Prevalence Index = B/A= 5.00

### Hydrophytic Vegetation Indicators:

☐ Rapid Test for Hydrophytic Vegetation  
☐ Dominance Test > 50%  
☐ Prevalence Index ≤ 3.0  
☐ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
☐ Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic  
 Vegetation Present? Yes \_\_\_\_\_ No X

% Bare Ground in Herb Stratum 25 % Cover of Biotic Crust 0

Remarks: (Include photo numbers here or on a separate sheet.)

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)           |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)       |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)   |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)   |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input type="checkbox"/> Depleted Matrix (F3)       |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)     |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)          |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |   |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)  
☐ 2 cm Muck (A10) (LRR B)  
☐ Reduced Vertic (F18)  
☐ Red Parent Material (TF2)  
☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No X**Remarks:**

No soil data collected due to dominant upland vegetaion.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)  
☐ Sediment Deposits (B2) (Riverine)  
☐ Drift Deposits (B3) (Riverine)  
☐ Drainage Patterns (B10)  
☐ Dry-Season Water Table (C2)  
☐ Crayfish Burrows (C8)  
☐ Saturation Visible on Aerial Imag.(C9)  
☐ Shallow Aquitard (D3)  
☐ FAC-Neutral Test (D5)

**Field Observations:**Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Water Table Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Saturation Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_

(includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

**Remarks:**

Completely dry, with no hydrology inticators noted.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 6/26/2013  
 Applicant/Owner: UDOT State: UT Map/Sheet: 14 Sampling Point: 24-W-201306261245  
 Investigators: Mike Perkins Section, Township, Range S 18 T 4 R 2  
 Landform (hillslope, terrace, etc.): Depression Local Relief (concave, convex, none): Concave Slope(%) 3  
 Subregion (LRR): LRR D Lat: 41.096161 Long: -112.085103 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Ford loam, shallow water table, 0 to 1 percent slopes NWI Classification: PEMH  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No        (If No, explain in Remarks)  
 Are Vegetation       , Soil       , Hydrology       , significantly disturbed? Are "Normal Circumstances" present? Yes X No         
 Are Vegetation       , Soil       , Hydrology       , naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No <u>      </u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No <u>      </u> Wetland ID: <u>22-W-70</u>
Hydric Soil Present? Yes <u>X</u> No <u>      </u>	
Wetland Hydrology Present? Yes <u>X</u> No <u>      </u>	

Remarks:  
 Wetland area within large drainage approaching an open water pond.

## VEGETATION— Use scientific names of plants.

**Absolute % Cover** **Dominant Species** **Indicator Status**

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

Schoenoplectus acutus	70	Y	OBL
Typha latifolia	25	Y	OBL
Phragmites australis	10	N	FACW
	105	=Total Cover	

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across all Strata: 2 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>95</u>	x 1 = <u>95</u>
FACW species <u>10</u>	x 2 = <u>20</u>
FAC species <u>0</u>	x 3 = <u>0</u>
FACU species <u>0</u>	x 4 = <u>0</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>105</u> (A)	<u>115</u> (B)

Prevalence Index = B/A = 1.10

### Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
 Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No       

% Bare Ground in Herb Stratum 5 % Cover of Biotic Crust 0

Remarks: (Include photo numbers here or on a separate sheet.)

Dominated by obligate emergent vegetation.



**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)           |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)       |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)   |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)   |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input type="checkbox"/> Depleted Matrix (F3)       |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)     |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)          |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |   |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)
- ☐ 2 cm Muck (A10) (LRR B)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes X No \_\_\_\_\_**Remarks:**

Area is dominated by obligate wetland vegetation and standing water is present so hydric soils can be assumed.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input checked="" type="checkbox"/> Surface Water (A1)             | <input type="checkbox"/> Salt Crust (B11)                              |
| <input checked="" type="checkbox"/> High Water Table (A2)          | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input checked="" type="checkbox"/> Saturation (A3)                | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)
- ☐ Sediment Deposits (B2) (Riverine)
- ☐ Drift Deposits (B3) (Riverine)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Shallow Aquitard (D3)
- ☒ FAC-Neutral Test (D5)

**Field Observations:**Surface Water Present? Yes X No \_\_\_\_\_ Depth (inches): 8Water Table Present? Yes X No \_\_\_\_\_ Depth (inches): \_\_\_\_\_Saturation Present? Yes X No \_\_\_\_\_ Depth (inches): 0

(includes capillary fringe)

**Wetland Hydrology Present?** Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

**Remarks:**

Wetland hydrology present.

# WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: WDC AC-09272016-1-IN City/County: Davis County Sampling Date: 9/27/2016  
 Applicant/Owner: UDOT State: Utah Sampling Point: AC-09272016-1  
 Investigator(s): AC Section, Township, Range: 22 3N 1W  
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): concave Slope (%): 0%  
 Subregion (LRR): D Lat: 40.98094438 Long: -111.9403377 Datum: GCS WGS84  
 Soil Map Unit Name: Warm Springs fine sandy loam, saline, sodic, 0 to 1 percent slopes, cha NWI classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____	
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	
Remarks:  Sampled area is a wetland.	

## VEGETATION – Use scientific names of plants.

<b>Tree Stratum</b> (Plot size: _____) 1. _____ 2. _____ 3. _____ 4. _____ _____ = Total Cover <b>Sapling/Shrub Stratum</b> (Plot size: _____) 1. _____ 2. _____ 3. _____ 4. _____ 5. _____ _____ = Total Cover <b>Herb Stratum</b> (Plot size: <u>5 ft. radius</u> ) 1. <u>Distichlis spicata</u> 60% Yes FAC 2. <u>Schoenoplectus pungens</u> 25% Yes OBL 3. <u>Eleocharis palustris</u> 15% OBL 4. _____ 5. _____ 6. _____ 7. _____ 8. _____ _____ 100% = Total Cover <b>Woody Vine Stratum</b> (Plot size: _____) 1. _____ 2. _____ _____ = Total Cover % Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B) <b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____ <b>Hydrophytic Vegetation Indicators:</b> ___ Dominance Test is >50% ___ Prevalence Index is ≤3.0 <sup>1</sup> ___ Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. <b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No _____
--	---

Remarks:  
Salt grass, spike rush wet meadow with 3-square throughout. Phragmites along fence line.

## SOIL

Sampling Point: AC-09272

### Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-2	10YR 2/2							organic matter
2-5	2.5Y 4/2	100%					SiClLoam	
5-9	10YR 3/1	50%	Gley 2 6/10G	5%			SaLoam	
	10YR 3/2	40%	5Y 6/1	5%				
9-11	Gley 1 6/1	40%					ClLoam	
	10YR 3/1	60%						
11-15	Gley 1 6/1	70%					ClLoam	
	10YR 3/1	30%						

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

### Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) (**LRR C**)
- ☐ 1 cm Muck (A9) (**LRR D**)
- ☒ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)

- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

### Indicators for Problematic Hydric Soils<sup>3</sup>:

- ☐ 1 cm Muck (A9) (**LRR C**)
- ☐ 2 cm Muck (A10) (**LRR B**)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

### Restrictive Layer (if present):

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes ☒ No ☐

Remarks:

Soil profile fits Depleted Below Dark Surface (A11) indicator.

## HYDROLOGY

### Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☒ Surface Water (A1)
- ☐ High Water Table (A2)
- ☒ Saturation (A3)
- ☐ Water Marks (B1) (**Nonriverine**)
- ☐ Sediment Deposits (B2) (**Nonriverine**)
- ☐ Drift Deposits (B3) (**Nonriverine**)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)

- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) (**Riverine**)
- ☐ Sediment Deposits (B2) (**Riverine**)
- ☐ Drift Deposits (B3) (**Riverine**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☒ FAC-Neutral Test (D5)

### Field Observations:

Surface Water Present? Yes ☒ No ☐ Depth (inches): 1

Water Table Present? Yes ☒ No ☐ Depth (inches): 12.5

Saturation Present? Yes ☒ No ☐ Depth (inches): 15  
(includes capillary fringe)

Wetland Hydrology Present? Yes ☒ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Hydrology present.

# WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: WDC AC-09272016-1-OUT City/County: Davis County Sampling Date: 9/27/2016  
 Applicant/Owner: UDOT State: Utah Sampling Point: AC-09272016  
 Investigator(s): AC Section, Township, Range: 22 3N 1W  
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): none Slope (%): 0%  
 Subregion (LRR): D Lat: 40.98097311 Long: -111.9404003 Datum: GCS WGS84  
 Soil Map Unit Name: Warm Springs fine sandy loam, saline, sodic, 0 to 1 percent slopes, cha NWI classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Hydric Soil Present? Yes _____ No _____	
Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	
Remarks:  Upland vegetation. No soil pit.	

## VEGETATION – Use scientific names of plants.

<b>Tree Stratum</b> (Plot size: _____) 1. _____ 2. _____ 3. _____ 4. _____ _____ = Total Cover <b>Sapling/Shrub Stratum</b> (Plot size: _____) 1. _____ 2. _____ 3. _____ 4. _____ 5. _____ _____ = Total Cover <b>Herb Stratum</b> (Plot size: <u>5 ft. radius</u> ) 1. <u>Thinopyrum intermedium</u> <u>70%</u> <u>Yes</u> <u>NL</u> 2. <u>Distichlis spicata</u> <u>20%</u> <u>Yes</u> <u>FAC</u> 3. _____ 4. _____ 5. _____ 6. _____ 7. _____ 8. _____ _____ <u>90%</u> = Total Cover <b>Woody Vine Stratum</b> (Plot size: _____) 1. _____ 2. _____ _____ = Total Cover % Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50%</u> (A/B) <b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species <u>20</u> x 3 = <u>60</u> FACU species _____ x 4 = _____ UPL species <u>70</u> x 5 = <u>350</u> Column Totals: <u>90</u> (A) <u>410</u> (B) Prevalence Index = B/A = <u>4.5</u> <b>Hydrophytic Vegetation Indicators:</b> ___ Dominance Test is >50% ___ Prevalence Index is ≤3.0 <sup>1</sup> ___ Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. <b>Hydrophytic Vegetation Present?</b> Yes _____ No <input checked="" type="checkbox"/>
Remarks:  Vegetation is not hydrophytic.	



## SOIL

Sampling Point: AC-09272 

[illegible]

## HYDROLOGY

Wetland Hydrology Indicators:		
Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (2 or more required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) ( <b>Riverine</b> )
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) ( <b>Riverine</b> )
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) ( <b>Riverine</b> )
<input type="checkbox"/> Water Marks (B1) ( <b>Nonriverine</b> )	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) ( <b>Nonriverine</b> )	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3) ( <b>Nonriverine</b> )	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present?    Yes <input type="checkbox"/> No <input type="checkbox"/> Depth (inches): _____ Water Table Present?    Yes <input type="checkbox"/> No <input type="checkbox"/> Depth (inches): _____ Saturation Present?    Yes <input type="checkbox"/> No <input type="checkbox"/> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		
No hydrology indicators observed.		

# WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: WDC AC-09272017-3-IN City/County: Davis County Sampling Date: 9/27/2016  
 Applicant/Owner: UDOT State: Utah Sampling Point: AC-09272017  
 Investigator(s): AC Section, Township, Range: 22 3N 1W  
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): none Slope (%): 2%  
 Subregion (LRR): D Lat: 40.97558308 Long: -111.9394929 Datum: D WGS 1983  
 Soil Map Unit Name: Arave-Saltair complex, 0 to 1 percent slopes NWI classification: L2UBGh

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)  
 Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐  
 Are Vegetation ☐, Soil ☐, or Hydrology ☒ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Remarks: Problematic hydrology. Looks like man-made basin. Part of the basin has been invaded by Bassia hyssopifolia.	

## VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)  Total Number of Dominant Species Across All Strata: <u>2</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
_____ = Total Cover				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B)  Prevalence Index = B/A = _____
<b>Sapling/Shrub Stratum</b> (Plot size: _____)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
_____ = Total Cover				<b>Hydrophytic Vegetation Indicators:</b> <input checked="" type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.  <b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
<b>Herb Stratum</b> (Plot size: <u>5 ft. radius</u> )				
1. <u>Distichlis spicata</u>	<u>120%</u>	<u>Yes</u>	<u>FAC</u>	
2. <u>Cordylanthus maritimus</u>	<u>10%</u>		<u>OBL</u>	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
_____ = Total Cover				
<b>Woody Vine Stratum</b> (Plot size: _____)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
_____ = Total Cover				
% Bare Ground in Herb Stratum _____	% Cover of Biotic Crust _____			
Remarks:				

# SOIL

Sampling Point: AC-09272

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-6	2.5Y 4/1	95%	10YR 3/6	5%	C	M	SaLoam	
6-9	2.5Y 4/1	80%	10YR 3/6	20%	C	M/PL	SaLoam	
9-15	2.5Y 4/1	50%	2.5Y 7/1	20%	D	M	ClLoam	
			10YR 3/6	10%	C	M		
			2.5 YR 2.5/1	20%	C	M		

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) (**LRR C**)
- ☐ 1 cm Muck (A9) (**LRR D**)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)

- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☒ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- ☐ 1 cm Muck (A9) (**LRR C**)
- ☐ 2 cm Muck (A10) (**LRR B**)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes ☒ No ☐

Remarks:

# HYDROLOGY

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1) (**Nonriverine**)
- ☐ Sediment Deposits (B2) (**Nonriverine**)
- ☐ Drift Deposits (B3) (**Nonriverine**)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)

- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) (**Riverine**)
- ☐ Sediment Deposits (B2) (**Riverine**)
- ☐ Drift Deposits (B3) (**Riverine**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present? Yes ☐ No ☒ Depth (inches): \_\_\_\_\_

Water Table Present? Yes ☐ No ☒ Depth (inches): \_\_\_\_\_

Saturation Present? (includes capillary fringe) Yes ☐ No ☒ Depth (inches): \_\_\_\_\_

**Wetland Hydrology Present?** Yes ☐ No ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No hydrology indicators present at the site. Soil cracks in other areas. Dry time of year for seasonal wetland.

# WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: WDC AC-09272017-3-OUT City/County: Davis County Sampling Date: 9/27/2016  
 Applicant/Owner: UDOT State: Utah Sampling Point: AC-09272017-3-OUT  
 Investigator(s): AC Section, Township, Range: 22 3N 1W  
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): none Slope (%): 3%  
 Subregion (LRR): D Lat: 40.97565165 Long: -111.9394221 Datum: D WGS 1983  
 Soil Map Unit Name: Arave-Saltair complex, 0 to 1 percent slopes NWI classification: L2UBGh

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)  
 Are Vegetation ☒, Soil ☒, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐  
 Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Hydric Soil Present? Yes <input type="checkbox"/> No <input type="checkbox"/>	
Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Remarks: Upland vegetation. Didn't sample soils. Appears that upland area has been filled.	

## VEGETATION – Use scientific names of plants.

<b>Tree Stratum</b> (Plot size: _____) 1. _____ 2. _____ 3. _____ 4. _____ _____ = Total Cover <b>Sapling/Shrub Stratum</b> (Plot size: _____) 1. _____ 2. _____ 3. _____ 4. _____ 5. _____ _____ = Total Cover <b>Herb Stratum</b> (Plot size: <u>5 ft. radius</u> ) 1. <u>Bromus tectorum</u> 30% Yes NL 2. <u>Distichlis spicata</u> 30% Yes FAC 3. <u>Thinopyrum intermedium</u> 10% NL 4. <u>Lepidium perfoliatum</u> 10% FACU 5. _____ 6. _____ 7. _____ 8. _____ _____ 80% = Total Cover <b>Woody Vine Stratum</b> (Plot size: _____) 1. _____ 2. _____ _____ = Total Cover % Bare Ground in Herb Stratum <u>20%</u> % Cover of Biotic Crust _____	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: _____ (A) Total Number of Dominant Species Across All Strata: _____ (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (A/B) <b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species <u>30</u> x 3 = <u>90</u> FACU species <u>10</u> x 4 = <u>40</u> UPL species <u>40</u> x 5 = <u>200</u> Column Totals: <u>80</u> (A) <u>330</u> (B) Prevalence Index = B/A = <u>4.0</u> <b>Hydrophytic Vegetation Indicators:</b> ___ Dominance Test is >50% ___ Prevalence Index is ≤3.0 <sup>1</sup> ___ Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. <b>Hydrophytic Vegetation Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Remarks: Vegetation is not hydrophytic.	



## SOIL

Sampling Point: AC-0927

[illegible]

## HYDROLOGY

Wetland Hydrology Indicators:		
Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (2 or more required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) ( <b>Riverine</b> )
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) ( <b>Riverine</b> )
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) ( <b>Riverine</b> )
<input type="checkbox"/> Water Marks (B1) ( <b>Nonriverine</b> )	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) ( <b>Nonriverine</b> )	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3) ( <b>Nonriverine</b> )	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present?    Yes <input type="checkbox"/> No <input type="checkbox"/> Depth (inches): _____ Water Table Present?    Yes <input type="checkbox"/> No <input type="checkbox"/> Depth (inches): _____ Saturation Present?    Yes <input type="checkbox"/> No <input type="checkbox"/> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		
No hydrology indicators observed.		

# WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: WDC MP-09272016-1-IN City/County: Davis Sampling Date: 9/27/2016  
 Applicant/Owner: UDOT State: Utah Sampling Point: MP-09272016  
 Investigator(s): MP Section, Township, Range: 27 3N 1W  
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): concave Slope (%): 1%  
 Subregion (LRR): D Lat: 40.97085557 Long: -111.9354128 Datum: D WGS 1983  
 Soil Map Unit Name: Airport silt loam, 0 to 2 percent slopes NWI classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____	
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	
Remarks:  Emergent marsh depression in horse pasture.	

## VEGETATION – Use scientific names of plants.

<b>Tree Stratum</b> (Plot size: _____) 1. _____ 2. _____ 3. _____ 4. _____ _____ = Total Cover <b>Sapling/Shrub Stratum</b> (Plot size: _____) 1. _____ 2. _____ 3. _____ 4. _____ 5. _____ _____ = Total Cover <b>Herb Stratum</b> (Plot size: <u>5 ft. radius</u> ) 1. <u>Typha sp.</u> 40% Yes OBL 2. <u>Epilobium ciliatum</u> 35% Yes FACW 3. <u>Hordeum jubatum</u> 10% FAC 4. <u>Rumex crispus</u> 5% FAC 5. <u>Phragmites australis</u> 5% FACW 6. _____ 7. _____ 8. _____ _____ 95% = Total Cover <b>Woody Vine Stratum</b> (Plot size: _____) 1. _____ 2. _____ _____ = Total Cover % Bare Ground in Herb Stratum <u>20%</u> % Cover of Biotic Crust _____	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B) <b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____ <b>Hydrophytic Vegetation Indicators:</b> ___ Dominance Test is >50% ___ Prevalence Index is ≤3.0 <sup>1</sup> ___ Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. <b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No _____
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Remarks:

# SOIL

Sampling Point: MP-092724

## Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-3	10YR 4/2	80%					SiClLoam	
	5Y 6/3	20%						
3-8	10YR 4/2	60%	2.5Y 6/2	35%	D	M	SiClLoam	
			2.5Y 6/8	5%	C	M		
8-15	5Y 6/3	50%	2.5Y 6/2	15%	D	M	SiLoam	
	10YR 4/2	20%	2.5Y 6/8	15%	C	M		

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

### Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) (**LRR C**)
- ☐ 1 cm Muck (A9) (**LRR D**)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)

- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☒ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

### Indicators for Problematic Hydric Soils<sup>3</sup>:

- ☐ 1 cm Muck (A9) (**LRR C**)
- ☐ 2 cm Muck (A10) (**LRR B**)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

### Restrictive Layer (if present):

Type: \_\_\_\_\_  
Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes ☒ No ☐

Remarks:

# HYDROLOGY

## Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☒ Saturation (A3)
- ☐ Water Marks (B1) (**Nonriverine**)
- ☐ Sediment Deposits (B2) (**Nonriverine**)
- ☐ Drift Deposits (B3) (**Nonriverine**)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)

- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) (**Riverine**)
- ☐ Sediment Deposits (B2) (**Riverine**)
- ☐ Drift Deposits (B3) (**Riverine**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

### Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches): \_\_\_\_\_  
Water Table Present? Yes ☐ No ☒ Depth (inches): \_\_\_\_\_  
Saturation Present? Yes ☒ No ☐ Depth (inches): 10"  
(includes capillary fringe)

Wetland Hydrology Present? Yes ☒ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Dry time of year but soil still saturated and cattail vegetation appears vigorous.

# WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: WDC MP-09272016-1-OUT City/County: Davis County Sampling Date: 9/27/2017  
 Applicant/Owner: UDOT State: Utah Sampling Point: MP-09272016  
 Investigator(s): MP Section, Township, Range: 27 3N 1W  
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): none Slope (%): 0%  
 Subregion (LRR): D Lat: 40.97080544 Long: -111.9354016 Datum: D WGS 1983  
 Soil Map Unit Name: Airport silt loam, 0 to 2 percent slopes NWI classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Hydric Soil Present? Yes _____ No _____	
Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	
Remarks: Upland vegetation. Didn't sample soils.	

## VEGETATION – Use scientific names of plants.

<b>Tree Stratum</b> (Plot size: _____) 1. _____ 2. _____ 3. _____ 4. _____ _____ = Total Cover <b>Sapling/Shrub Stratum</b> (Plot size: _____) 1. _____ 2. _____ 3. _____ 4. _____ 5. _____ _____ = Total Cover <b>Herb Stratum</b> (Plot size: <u>5 ft. radius</u> ) 1. <u>Bromus tectorum</u> 25% NL 2. <u>Cardaria draba</u> 25% NL 3. <u>Bromus arvensis</u> 25% FACU 4. <u>Atriplex micrantha</u> 20% NL 5. _____ 6. _____ 7. _____ 8. _____ _____ 95% = Total Cover <b>Woody Vine Stratum</b> (Plot size: _____) 1. _____ 2. _____ _____ = Total Cover % Bare Ground in Herb Stratum <u>15%</u> % Cover of Biotic Crust _____	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>4</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B) <b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species <u>25</u> x 4 = <u>100</u> UPL species <u>70</u> x 5 = <u>350</u> Column Totals: <u>95</u> (A) <u>450</u> (B) Prevalence Index = B/A = <u>4.7</u> <b>Hydrophytic Vegetation Indicators:</b> ___ Dominance Test is >50% ___ Prevalence Index is ≤3.0 <sup>1</sup> ___ Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. <b>Hydrophytic Vegetation Present?</b> Yes _____ No <input checked="" type="checkbox"/>
Remarks:	



## SOIL

Sampling Point: MP-09272 

[illegible]

## HYDROLOGY

Wetland Hydrology Indicators:		
Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (2 or more required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) ( <b>Riverine</b> )
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) ( <b>Riverine</b> )
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) ( <b>Riverine</b> )
<input type="checkbox"/> Water Marks (B1) ( <b>Nonriverine</b> )	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) ( <b>Nonriverine</b> )	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3) ( <b>Nonriverine</b> )	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present?    Yes <input type="checkbox"/> No <input type="checkbox"/> Depth (inches): _____ Water Table Present?    Yes <input type="checkbox"/> No <input type="checkbox"/> Depth (inches): _____ Saturation Present?    Yes <input type="checkbox"/> No <input type="checkbox"/> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		
Dry site.		

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 6/20/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 13 Sampling Point: 22-N-201206201553  
 Investigators: Mike Perkins Section, Township, Range S 15 T 3 R 1  
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): Convex Slope(%) 1  
 Subregion (LRR): LRR D Lat: 40.991572536 Long: -111.94072049 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Warm Springs fine sandy loam, saline, sodic, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> <b>Wetland ID:</b> _____
Hydric Soil Present?	Yes _____ No <u>X</u>	
Wetland Hydrology Present?	Yes _____ No <u>X</u>	

Remarks:  
 "Out" point where vegetation is transitioning to non hydrophytic.

## VEGETATION— Use scientific names of plants.

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
Hordeum pusillum	30	Y	FACU
Distichlis spicata	25	Y	FAC
Thinopyrum intermedium	25	Y	UPL
Bromus inermis	20	N	FACU
Hordeum jubatum	5	N	FAC
Lepidium latifolium	5	N	FAC
	110	=Total Cover	

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across all Strata: 3 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 33.3% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>0</u>	x 2 = <u>0</u>
FAC species <u>35</u>	x 3 = <u>105</u>
FACU species <u>50</u>	x 4 = <u>200</u>
UPL species <u>25</u>	x 5 = <u>125</u>
Column Totals: <u>110</u> (A)	<u>430</u> (B)

Prevalence Index = B/A= 3.91

### Hydrophytic Vegetation Indicators:

☐ Rapid Test for Hydrophytic Vegetation  
☐ Dominance Test > 50%  
☐ Prevalence Index ≤ 3.0  
☐ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
☐ Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

% Bare Ground in Herb Stratum 1 % Cover of Biotic Crust

**Hydrophytic Vegetation Present?** Yes \_\_\_\_\_ No X

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation is not hydrophytic.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks	
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>			
0 to 18	10YR	3.0 / 2	60	10YR 4/3	40	C	M	FINE SANDY LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) LRR C
- ☐ 1 cm Muck (A9) LRR F D
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)

- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)
- ☐ 2 cm Muck (A10) (LRR B)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No X

## Remarks:

The 2 colors are marbeled but still fail to indicate hydric conditions.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1) (Nonriverine)
- ☐ Sediment Deposits (B2) (Nonriverine)
- ☐ Drift Deposits (B3) (Nonriverine)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)
- ☐ Sediment Deposits (B2) (Riverine)
- ☐ Drift Deposits (B3) (Riverine)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

**Field Observations:**Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Water Table Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Saturation Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_

(includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

Dry field to NE slightly higher than wetland marsh to SW.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 6/21/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 13 Sampling Point: 22-N-201206211210  
 Investigators: Mike Perkins Section, Township, Range S 15 T 3 R 1  
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): Concave Slope(%) 1  
 Subregion (LRR): LRR D Lat: 40.9900521664 Long: -111.937611522 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Lakeshore fine sandy loam, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland?	Yes _____ No <u>X</u>
Hydric Soil Present?	Yes _____ No <u>X</u>		
Wetland Hydrology Present?	Yes _____ No <u>X</u>		Wetland ID: _____

Remarks:  
 NOT wetland; not full sample point because vegetation is NOT hydrophytic.

## VEGETATION— Use scientific names of plants.

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

	Absolute % Cover	Dominant Species	Indicator Status
Thinopyrum intermedium	30	Y	UPL
Trifolium fragiferum	25	Y	FACU
Hordeum jubatum	20	Y	FAC
Festuca pratensis	10	N	FACU
Bromus inermis	5	N	FACU
Carex nebrascensis	5	N	OBL
Cirsium arvense	5	N	FACU
	100 =Total Cover		

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species  
 That are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant  
 Species Across all Strata: 3 (B)

Percent of Dominant Species  
 That are OBL, FACW, or FAC: 33.3% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>5</u>	x 1 = <u>5</u>
FACW species <u>0</u>	x 2 = <u>0</u>
FAC species <u>20</u>	x 3 = <u>60</u>
FACU species <u>45</u>	x 4 = <u>180</u>
UPL species <u>30</u>	x 5 = <u>150</u>
Column Totals: <u>100</u> (A)	<u>395</u> (B)

Prevalence Index = B/A= 3.95

### Hydrophytic Vegetation Indicators:

\_\_\_\_ Rapid Test for Hydrophytic Vegetation  
 \_\_\_\_ Dominance Test > 50%  
 \_\_\_\_ Prevalence Index ≤ 3.0  
 \_\_\_\_ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 \_\_\_\_ Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic  
 Vegetation Present? Yes \_\_\_\_\_ No X

% Bare Ground in Herb Stratum 10 % Cover of Biotic Crust

Remarks: (Include photo numbers here or on a separate sheet.)

Carex getting "crispy".



**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)           |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)       |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)   |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)   |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input type="checkbox"/> Depleted Matrix (F3)       |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)     |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)          |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |   |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)
- ☐ 2 cm Muck (A10) (LRR B)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No X**Remarks:**

No soil data was collected because vegetation was upland.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)
- ☐ Sediment Deposits (B2) (Riverine)
- ☐ Drift Deposits (B3) (Riverine)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

**Field Observations:**Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Water Table Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Saturation Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_

(includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

**Remarks:**

Dry surface with flowing ditch nearby (S).

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 6/21/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 13 Sampling Point: 22-N-201206211252  
 Investigators: Mike Perkins Section, Township, Range S 15 T 3 R 1  
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): Concave Slope(%) 1  
 Subregion (LRR): LRR D Lat: 40.9907837268 Long: -111.938287884 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Lakeshore fine sandy loam, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> Wetland ID: _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks:  
 Sample point suggests this part of pasture area is NOT a wetland - no hydric soils.

## VEGETATION - Use scientific names of plants.

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
Eleocharis palustris	30	Y	OBL
Bromus inermis	25	Y	FACU
Hordeum jubatum	25	Y	FAC
Thinopyrum intermedium	25	Y	UPL
Puccinellia nuttalliana	20	N	FACW
	125	=Total Cover	

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 2 (A)  
 Total Number of Dominant Species Across all Strata: 4 (B)  
 Percent of Dominant Species That are OBL, FACW, or FAC: 50.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>30</u>	x 1 = <u>30</u>
FACW species <u>20</u>	x 2 = <u>40</u>
FAC species <u>25</u>	x 3 = <u>75</u>
FACU species <u>25</u>	x 4 = <u>100</u>
UPL species <u>25</u>	x 5 = <u>125</u>
Column Totals: <u>125</u> (A)	<u>370</u> (B)
Prevalence Index = B/A = <u>2.96</u>	

### Hydrophytic Vegetation Indicators:

\_\_\_\_ Rapid Test for Hydrophytic Vegetation  
 \_\_\_\_ Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
 \_\_\_\_ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 \_\_\_\_ Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No \_\_\_\_\_

% Bare Ground in Herb Stratum 10 % Cover of Biotic Crust \_\_\_\_\_

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation is hydrophytic.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks	
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>			
0 to 18	10YR	3.0 / 2	70	10YR 4/3	30	C	M	SILTY CLAY LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- ☐ Histosol (A1)  
☐ Histic Epipedon (A2)  
☐ Black Histic (A3)  
☐ Hydrogen Sulfide (A4)  
☐ Stratified Layers (A5) LRR C  
☐ 1 cm Muck (A9) LRR F D  
☐ Depleted Below Dark Surface (A11)  
☐ Thick Dark Surface (A12)  
☐ Sandy Mucky Mineral (S1)  
☐ Sandy Gleyed Matrix (S4)

- ☐ Sandy Redox (S5)  
☐ Stripped Matrix (S6)  
☐ Loamy Mucky Mineral (F1)  
☐ Loamy Gleyed Matrix (F2)  
☐ Depleted Matrix (F3)  
☐ Redox Dark Surface (F6)  
☐ Depleted Dark Surface (F7)  
☐ Redox Depressions (F8)  
☐ Vernal Pools (F9)

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)  
☐ 2 cm Muck (A10) (LRR B)  
☐ Reduced Vertic (F18)  
☐ Red Parent Material (TF2)  
☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No X**Remarks:**

Marbeled colors, but still fail to indicate hydric conditions.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- ☒ Surface Water (A1)  
☒ High Water Table (A2)  
☒ Saturation (A3)  
☐ Water Marks (B1) (Nonriverine)  
☐ Sediment Deposits (B2) (Nonriverine)  
☐ Drift Deposits (B3) (Nonriverine)  
☐ Surface Soil Cracks (B6)  
☐ Inundation Visible on Aerial Imagery (B7)  
☐ Water-Stained Leaves (B9)  
☐ Salt Crust (B11)  
☐ Biotic Crust (B12)  
☐ Aquatic Fauna (B13)  
☐ Hydrogen Sulfide Odor (C1)  
☐ Oxidized Rhizospheres along Living Roots (C3)  
☐ Presence of Reduced Iron (C4)  
☐ Recent Iron Reduction in Tilled Soils (C6)  
☐ Thin Muck Surface (C7)  
☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)  
☐ Sediment Deposits (B2) (Riverine)  
☐ Drift Deposits (B3) (Riverine)  
☐ Drainage Patterns (B10)  
☐ Dry-Season Water Table (C2)  
☐ Crayfish Burrows (C8)  
☐ Saturation Visible on Aerial Imag.(C9)  
☐ Shallow Aquitard (D3)  
☐ FAC-Neutral Test (D5)

**Field Observations:**Surface Water Present? Yes X No \_\_\_\_\_ Depth (inches): \_\_\_\_\_ 1Water Table Present? Yes X No \_\_\_\_\_ Depth (inches): \_\_\_\_\_ 0Saturation Present? Yes X No \_\_\_\_\_ Depth (inches): \_\_\_\_\_ 0

(includes capillary fringe)

**Wetland Hydrology Present?** Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

**Remarks:**

Flooding to field appears from ditch to N.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 6/22/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 14 Sampling Point: 22-N-201206221145  
 Investigators: Nate Nichols Mike Perkins Section, Township, Range S 15 T 3 R 1  
 Landform (hillslope, terrace, etc.): Basin Local Relief (concave, convex, none): Concave Slope(%) 5  
 Subregion (LRR): LRR D Lat: 40.9877368318 Long: -111.935632535 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Lakeshore fine sandy loam, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> Wetland ID: _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	
Remarks: Upland point.	

## VEGETATION— Use scientific names of plants.

<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
<u>Tree Stratum</u>		
<u>Shrub Stratum</u>		
<u>Herb Stratum</u> (Plot size: <u>30 Ft</u> )		
<u>Lepidium perfoliatum</u>	<u>20</u>	<u>Y</u> <u>FACU</u>
<u>Pascopyrum smithii</u>	<u>20</u>	<u>Y</u> <u>FAC</u>
<u>Elymus elymoides</u>	<u>15</u>	<u>Y</u> <u>FACU</u>
<u>Poa pratensis</u>	<u>15</u>	<u>Y</u> <u>FAC</u>
<u>Bromus tectorum</u>	<u>5</u>	<u>N</u> <u>UPL</u>
<u>75</u>	<u>=Total Cover</u>	

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 2 (A)  
 Total Number of Dominant Species Across all Strata: 4 (B)  
 Percent of Dominant Species That are OBL, FACW, or FAC: 50.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>0</u>	x 2 = <u>0</u>
FAC species <u>35</u>	x 3 = <u>105</u>
FACU species <u>35</u>	x 4 = <u>140</u>
UPL species <u>5</u>	x 5 = <u>25</u>
Column Totals: <u>75</u> (A)	<u>270</u> (B)
Prevalence Index = B/A= <u>3.60</u>	

### Hydrophytic Vegetation Indicators:

☐ Rapid Test for Hydrophytic Vegetation  
☐ Dominance Test > 50%  
☐ Prevalence Index ≤ 3.0  
☐ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
☐ Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes \_\_\_\_\_ No X

% Bare Ground in Herb Stratum 10 % Cover of Biotic Crust \_\_\_\_\_

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation is not hydrophytic.



**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 12	10YR	3.0 / 3		100			SANDY CLAY LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)           |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)       |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)   |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)   |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input type="checkbox"/> Depleted Matrix (F3)       |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)     |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)          |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |   |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- |   |
|---|
| <input type="checkbox"/> 1 cm Muck (A9) (LRR C)     |
| <input type="checkbox"/> 2 cm Muck (A10) (LRR B)    |
| <input type="checkbox"/> Reduced Vertic (F18)       |
| <input type="checkbox"/> Red Parent Material (TF2)  |
| <input type="checkbox"/> Other (Explain in Remarks) |

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No X

## Remarks:

Soil fails to indicate hydric conditions.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- |   |
|---|
| <input type="checkbox"/> Water Marks (B1) (Riverine)            |
| <input type="checkbox"/> Sediment Deposits (B2) (Riverine)      |
| <input type="checkbox"/> Drift Deposits (B3) (Riverine)         |
| <input type="checkbox"/> Drainage Patterns (B10)                |
| <input type="checkbox"/> Dry-Season Water Table (C2)            |
| <input type="checkbox"/> Crayfish Burrows (C8)                  |
| <input type="checkbox"/> Saturation Visible on Aerial Imag.(C9) |
| <input type="checkbox"/> Shallow Aquitard (D3)                  |
| <input type="checkbox"/> FAC-Neutral Test (D5)                  |

**Field Observations:**Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Water Table Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Saturation Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_

(includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

No hydrology present.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 6/22/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 13 Sampling Point: 22-N-201206221208  
 Investigators: Nate Nichols Mike Perkins Section, Township, Range S 15 T 3 R 1  
 Landform (hillslope, terrace, etc.): Basin Local Relief (concave, convex, none): Concave Slope(%) 5  
 Subregion (LRR): LRR D Lat: 40.9882363329 Long: -111.935963371 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Lakeshore fine sandy loam, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes \_\_\_\_\_ No X  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology X, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> <b>Wetland ID:</b> _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks:  
 Vegetation is not hydrophytic; similar to upland point to the south, appears influenced by irrigation.

## VEGETATION— Use scientific names of plants.

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
Lepidium perfoliatum	35	Y	FACU
Brassica juncea	25	Y	FACU
Elymus elymoides	20	Y	FACU
Pascopyrum smithii	15	N	FAC
	95	=Total Cover	

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 0 (A)  
 Total Number of Dominant Species Across all Strata: 3 (B)  
 Percent of Dominant Species That are OBL, FACW, or FAC: 0.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>0</u>	x 2 = <u>0</u>
FAC species <u>15</u>	x 3 = <u>45</u>
FACU species <u>80</u>	x 4 = <u>320</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>95</u> (A)	<u>365</u> (B)
Prevalence Index = B/A= <u>3.84</u>	

### Hydrophytic Vegetation Indicators:

☐ Rapid Test for Hydrophytic Vegetation  
☐ Dominance Test > 50%  
☐ Prevalence Index ≤ 3.0  
☐ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
☐ Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

% Bare Ground in Herb Stratum 5 % Cover of Biotic Crust \_\_\_\_\_

**Hydrophytic Vegetation Present?** Yes \_\_\_\_\_ No X

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation is not hydrophytic.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 14	10YR	3.0/ 2	100				SANDY CLAY LOAM	
14 to 20	10YR	4.0/ 3	100				SILTY CLAY LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- ☐ Histosol (A1)  
☐ Histic Epipedon (A2)  
☐ Black Histic (A3)  
☐ Hydrogen Sulfide (A4)  
☐ Stratified Layers (A5) LRR C  
☐ 1 cm Muck (A9) LRR F D  
☐ Depleted Below Dark Surface (A11)  
☐ Thick Dark Surface (A12)  
☐ Sandy Mucky Mineral (S1)  
☐ Sandy Gleyed Matrix (S4)

- ☐ Sandy Redox (S5)  
☐ Stripped Matrix (S6)  
☐ Loamy Mucky Mineral (F1)  
☐ Loamy Gleyed Matrix (F2)  
☐ Depleted Matrix (F3)  
☐ Redox Dark Surface (F6)  
☐ Depleted Dark Surface (F7)  
☐ Redox Depressions (F8)  
☐ Vernal Pools (F9)

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)  
☐ 2 cm Muck (A10) (LRR B)  
☐ Reduced Vertic (F18)  
☐ Red Parent Material (TF2)  
☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No X

## Remarks:

Soil fails to indicate hydric conditions.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- ☒ Surface Water (A1)  
☐ High Water Table (A2)  
☒ Saturation (A3)  
☐ Water Marks (B1) (Nonriverine)  
☐ Sediment Deposits (B2) (Nonriverine)  
☐ Drift Deposits (B3) (Nonriverine)  
☐ Surface Soil Cracks (B6)  
☐ Inundation Visible on Aerial Imagery (B7)  
☐ Water-Stained Leaves (B9)  
☐ Salt Crust (B11)  
☐ Biotic Crust (B12)  
☐ Aquatic Fauna (B13)  
☐ Hydrogen Sulfide Odor (C1)  
☐ Oxidized Rhizospheres along Living Roots (C3)  
☐ Presence of Reduced Iron (C4)  
☐ Recent Iron Reduction in Tilled Soils (C6)  
☐ Thin Muck Surface (C7)  
☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)  
☐ Sediment Deposits (B2) (Riverine)  
☐ Drift Deposits (B3) (Riverine)  
☐ Drainage Patterns (B10)  
☐ Dry-Season Water Table (C2)  
☐ Crayfish Burrows (C8)  
☐ Saturation Visible on Aerial Imag.(C9)  
☐ Shallow Aquitard (D3)  
☐ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present? Yes X No \_\_\_\_\_ Depth (inches): 1  
Water Table Present? Yes \_\_\_\_\_ No X Depth (inches): -  
Saturation Present? Yes X No \_\_\_\_\_ Depth (inches): 0  
(includes capillary fringe)

**Wetland Hydrology Present?** Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

Hydrology observed, may be influenced by irrigation.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 6/25/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 14 Sampling Point: 22-N-201206251252  
 Investigators: Donovan Gross Nate Nichols Section, Township, Range S 22 T 3 R 1  
 Landform (hillslope, terrace, etc.): Basin Local Relief (concave, convex, none): Concave Slope(%) 1  
 Subregion (LRR): \_\_\_\_\_ Lat: 40.9821226702 Long: -111.93835077 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Warm Springs fine sandy loam, saline, sodic, 0 to 1 percent slopes, chann NWI Classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland?	Yes _____ No <u>X</u>
Hydric Soil Present?	Yes _____ No <u>X</u>		
Wetland Hydrology Present?	Yes _____ No <u>X</u>		Wetland ID: _____

Remarks:  
 Upland point, no soil pit.

## VEGETATION— Use scientific names of plants.

<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
60	Y	FACU
35	Y	FAC
95	=Total Cover	

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

Hordeum pusillum  
Hordeum jubatum

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 1 (A)  
 Total Number of Dominant Species Across all Strata: 2 (B)  
 Percent of Dominant Species That are OBL, FACW, or FAC: 50.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>0</u>	x 2 = <u>0</u>
FAC species <u>35</u>	x 3 = <u>105</u>
FACU species <u>60</u>	x 4 = <u>240</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>95</u> (A)	<u>345</u> (B)
Prevalence Index = B/A= <u>3.63</u>	

### Hydrophytic Vegetation Indicators:

       Rapid Test for Hydrophytic Vegetation  
       Dominance Test > 50%  
       Prevalence Index ≤ 3.0  
       Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
       Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes \_\_\_\_\_ No X

% Bare Ground in Herb Stratum 0 % Cover of Biotic Crust 0

Remarks: (Include photo numbers here or on a separate sheet.)

Facultative vegetation is dry; not hydrophytic.



**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)           |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)       |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)   |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)   |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input type="checkbox"/> Depleted Matrix (F3)       |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)     |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)          |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |   |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- |   |
|---|
| <input type="checkbox"/> 1 cm Muck (A9) (LRR C)     |
| <input type="checkbox"/> 2 cm Muck (A10) (LRR B)    |
| <input type="checkbox"/> Reduced Vertic (F18)       |
| <input type="checkbox"/> Red Parent Material (TF2)  |
| <input type="checkbox"/> Other (Explain in Remarks) |

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No X**Remarks:**

No soil data collected because vegetation was upland.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- |   |
|---|
| <input type="checkbox"/> Water Marks (B1) (Riverine)            |
| <input type="checkbox"/> Sediment Deposits (B2) (Riverine)      |
| <input type="checkbox"/> Drift Deposits (B3) (Riverine)         |
| <input type="checkbox"/> Drainage Patterns (B10)                |
| <input type="checkbox"/> Dry-Season Water Table (C2)            |
| <input type="checkbox"/> Crayfish Burrows (C8)                  |
| <input type="checkbox"/> Saturation Visible on Aerial Imag.(C9) |
| <input type="checkbox"/> Shallow Aquitard (D3)                  |
| <input type="checkbox"/> FAC-Neutral Test (D5)                  |

**Field Observations:**Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Water Table Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Saturation Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_

(includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

**Remarks:**

no indicators

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 7/19/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: \_\_\_\_\_ Sampling Point: 22-N-201207191232  
 Investigators: Trent Toler Section, Township, Range S 15 T 3 R 1  
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): None Slope(%) 0  
 Subregion (LRR): LRR D Lat: 40.9891940441 Long: -111.939209958 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Lakeshore fine sandy loam, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> Wetland ID: _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	

### Remarks:

Cow pasture with some FAC veg, borders and transitions to emergent marsh.

## VEGETATION— Use scientific names of plants.

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
Hordeum jubatum	30	Y	FAC
Distichlis spicata	20	Y	FAC
Hordeum pusillum	20	Y	FACU
Festuca idahoensis	15	N	FACU
Atriplex micrantha	5	N	UPL
Taraxacum officinale	5	N	FACU
	95	=Total Cover	

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 2 (A)  
 Total Number of Dominant Species Across all Strata: 3 (B)  
 Percent of Dominant Species That are OBL, FACW, or FAC: 66.7% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>0</u>	x 2 = <u>0</u>
FAC species <u>50</u>	x 3 = <u>150</u>
FACU species <u>40</u>	x 4 = <u>160</u>
UPL species <u>5</u>	x 5 = <u>25</u>
Column Totals: <u>95</u> (A)	<u>335</u> (B)

Prevalence Index = B/A = 3.53

### Hydrophytic Vegetation Indicators:

\_\_\_\_ Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
 \_\_\_\_ Prevalence Index ≤ 3.0  
 \_\_\_\_ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 \_\_\_\_ Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No \_\_\_\_\_

% Bare Ground in Herb Stratum 20 % Cover of Biotic Crust \_\_\_\_\_

### Remarks: (Include photo numbers here or on a separate sheet.)

Bare areas because of cattle trampling, mix of FACU and FAC veg.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 11	10YR	2.0/ 2	100				CLAY LOAM	1" of 2.5YR 5/1 20%
11 to 15	10YR	3.0/ 2	100				SANDY CLAY LOAM	
15 to 18	10YR	4.0/ 3	90	10YR 3/2	10	M	SANDY CLAY	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)           |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)       |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)   |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)   |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input type="checkbox"/> Depleted Matrix (F3)       |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)     |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)          |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |   |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- |   |
|---|
| <input type="checkbox"/> 1 cm Muck (A9) (LRR C)     |
| <input type="checkbox"/> 2 cm Muck (A10) (LRR B)    |
| <input type="checkbox"/> Reduced Vertic (F18)       |
| <input type="checkbox"/> Red Parent Material (TF2)  |
| <input type="checkbox"/> Other (Explain in Remarks) |

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No X

## Remarks:

Narrow band, 9-10 in, of 20% 2.5yr 5/1. In 15-18, 3/2 part is not redox, just undepleted soil. Soil does not appear to indicate hydric conditions.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- |   |
|---|
| <input type="checkbox"/> Water Marks (B1) (Riverine)            |
| <input type="checkbox"/> Sediment Deposits (B2) (Riverine)      |
| <input type="checkbox"/> Drift Deposits (B3) (Riverine)         |
| <input type="checkbox"/> Drainage Patterns (B10)                |
| <input type="checkbox"/> Dry-Season Water Table (C2)            |
| <input type="checkbox"/> Crayfish Burrows (C8)                  |
| <input type="checkbox"/> Saturation Visible on Aerial Imag.(C9) |
| <input type="checkbox"/> Shallow Aquitard (D3)                  |
| <input type="checkbox"/> FAC-Neutral Test (D5)                  |

**Field Observations:**

Surface Water Present?	Yes _____ No <u>X</u>	Depth (inches):	_____
Water Table Present?	Yes _____ No <u>X</u>	Depth (inches):	_____
Saturation Present?	Yes _____ No <u>X</u>	Depth (inches):	_____

(includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

No indicators

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 7/19/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 14 Sampling Point: 22-N-201207191434  
 Investigators: Trent Toler Section, Township, Range S 22 T 3 R 1  
 Landform (hillslope, terrace, etc.): Toe of Slope Local Relief (concave, convex, none): None Slope(%) 3  
 Subregion (LRR): LRR D Lat: 40.9857888083 Long: -111.935519105 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Arave-Saltair complex, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes \_\_\_\_\_ No X  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology X, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> Wetland ID: _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	

Remarks:  
 Upland slope leading to housing development, dry and weedy

## VEGETATION— Use scientific names of plants.

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
Hordeum pusillum	30	Y	FACU
Thinopyrum ponticum	30	Y	UPL
Bromus tectorum	20	Y	UPL
Festuca idahoensis	10	N	FACU
Atriplex micrantha	3	N	UPL
	93	=Total Cover	

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 0 (A)  
 Total Number of Dominant Species Across all Strata: 3 (B)  
 Percent of Dominant Species That are OBL, FACW, or FAC: 0.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>0</u>	x 2 = <u>0</u>
FAC species <u>0</u>	x 3 = <u>0</u>
FACU species <u>40</u>	x 4 = <u>160</u>
UPL species <u>53</u>	x 5 = <u>265</u>
Column Totals: <u>93</u> (A)	<u>425</u> (B)
Prevalence Index = B/A= <u>4.57</u>	

### Hydrophytic Vegetation Indicators:

☐ Rapid Test for Hydrophytic Vegetation  
☐ Dominance Test > 50%  
☐ Prevalence Index ≤ 3.0  
☐ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
☐ Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes \_\_\_\_\_ No X

% Bare Ground in Herb Stratum \_\_\_\_\_ % Cover of Biotic Crust \_\_\_\_\_

Remarks: (Include photo numbers here or on a separate sheet.)  
 A few more minor species may be present but were cenesent and could not be identified.



**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 3	10YR 4.0/ 2	100					LOAM	
3 to 8	10YR 4.0/ 2	100					SANDY LOAM	
8 to 11	10YR 3.0/ 2	60	10YR 6/3	3	D	M	SANDY CLAY LOAM	10YR 4/2 40% D M
11 to 14	10YR 4.0/ 3	40	10YR 5/3	60	D	M	SANDY CLAY LOAM	
14 to 18	10YR 5.0/ 3	95	10YR 7/3	3	D	M	SANDY CLAY LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)           |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)       |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)   |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)   |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input type="checkbox"/> Depleted Matrix (F3)       |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)     |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)          |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |   |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- |   |
|---|
| <input type="checkbox"/> 1 cm Muck (A9) (LRR C)     |
| <input type="checkbox"/> 2 cm Muck (A10) (LRR B)    |
| <input type="checkbox"/> Reduced Vertic (F18)       |
| <input type="checkbox"/> Red Parent Material (TF2)  |
| <input type="checkbox"/> Other (Explain in Remarks) |

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No X

## Remarks:

Failed to meet any hydric indicator.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- |  |
|--|
| <input type="checkbox"/> Water Marks (B1) (Riverine)             |
| <input type="checkbox"/> Sediment Deposits (B2) (Riverine)       |
| <input type="checkbox"/> Drift Deposits (B3) (Riverine)          |
| <input type="checkbox"/> Drainage Patterns (B10)                 |
| <input type="checkbox"/> Dry-Season Water Table (C2)             |
| <input type="checkbox"/> Crayfish Burrows (C8)                   |
| <input type="checkbox"/> Saturation Visible on Aerial Imag. (C9) |
| <input type="checkbox"/> Shallow Aquitard (D3)                   |
| <input type="checkbox"/> FAC-Neutral Test (D5)                   |

**Field Observations:**

Surface Water Present?	Yes _____ No <u>X</u>	Depth (inches):	____
Water Table Present?	Yes _____ No <u>X</u>	Depth (inches):	____
Saturation Present?	Yes _____ No <u>X</u>	Depth (inches):	____

(includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

No hydrology.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 7/19/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 14 Sampling Point: 22-N-201207191547  
 Investigators: Trent Toler Section, Township, Range S 22 T 3 R 1  
 Landform (hillslope, terrace, etc.): Terrace Local Relief (concave, convex, none): None Slope(%) 0  
 Subregion (LRR): LRR D Lat: 40.9844561571 Long: -111.937824766 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Arave-Saltair complex, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation X, Soil X, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes \_\_\_\_\_ No X  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland?	Yes _____ No <u>X</u>
Hydric Soil Present?	Yes _____ No <u>X</u>		
Wetland Hydrology Present?	Yes _____ No <u>X</u>		Wetland ID: _____

Remarks:  
 Large fill area in surrounding wetland, pit was 2-3 ft above wetland.

## VEGETATION— Use scientific names of plants.

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

	Absolute % Cover	Dominant Species	Indicator Status
Melilotus officinalis	30	Y	FACU
Lepidium perfoliatum	20	Y	FACU
Puccinellia nuttalliana	20	Y	FACW
Hordeum jubatum	10	N	FAC
Lepidium latifolium	5	N	FAC
	85	=Total Cover	

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species  
That are OBL, FACW, or FAC: 1 (A)  
 Total Number of Dominant  
Species Across all Strata: 3 (B)  
 Percent of Dominant Species  
That are OBL, FACW, or FAC: 33.3% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>20</u>	x 2 = <u>40</u>
FAC species <u>15</u>	x 3 = <u>45</u>
FACU species <u>50</u>	x 4 = <u>200</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>85</u> (A)	<u>285</u> (B)
Prevalence Index = B/A= <u>3.35</u>	

### Hydrophytic Vegetation Indicators:

\_\_\_\_ Rapid Test for Hydrophytic Vegetation  
 \_\_\_\_ Dominance Test > 50%  
 \_\_\_\_ Prevalence Index ≤ 3.0  
 \_\_\_\_ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 \_\_\_\_ Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic  
Vegetation Present? Yes \_\_\_\_\_ No X

% Bare Ground in Herb Stratum 20 % Cover of Biotic Crust

Remarks: (Include photo numbers here or on a separate sheet.)

Mix of weedy and salt-tolerant species.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 6	10YR	4.0 / 3	100				SANDY CLAY LOAM	
6 to 18	10YR	4.0 / 2	100				SANDY CLAY LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- ☐ Histosol (A1)  
☐ Histic Epipedon (A2)  
☐ Black Histic (A3)  
☐ Hydrogen Sulfide (A4)  
☐ Stratified Layers (A5) LRR C  
☐ 1 cm Muck (A9) LRR F D  
☐ Depleted Below Dark Surface (A11)  
☐ Thick Dark Surface (A12)  
☐ Sandy Mucky Mineral (S1)  
☐ Sandy Gleyed Matrix (S4)

- ☐ Sandy Redox (S5)  
☐ Stripped Matrix (S6)  
☐ Loamy Mucky Mineral (F1)  
☐ Loamy Gleyed Matrix (F2)  
☐ Depleted Matrix (F3)  
☐ Redox Dark Surface (F6)  
☐ Depleted Dark Surface (F7)  
☐ Redox Depressions (F8)  
☐ Vernal Pools (F9)

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)  
☐ 2 cm Muck (A10) (LRR B)  
☐ Reduced Vertic (F18)  
☐ Red Parent Material (TF2)  
☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No X

## Remarks:

Soils was a mixed fill of many materials, with gravels. Colors were from the primary matrix color. Fails to meet any hydric indicator.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)  
☐ High Water Table (A2)  
☐ Saturation (A3)  
☐ Water Marks (B1) (Nonriverine)  
☐ Sediment Deposits (B2) (Nonriverine)  
☐ Drift Deposits (B3) (Nonriverine)  
☐ Surface Soil Cracks (B6)  
☐ Inundation Visible on Aerial Imagery (B7)  
☐ Water-Stained Leaves (B9)  
☐ Salt Crust (B11)  
☐ Biotic Crust (B12)  
☐ Aquatic Fauna (B13)  
☐ Hydrogen Sulfide Odor (C1)  
☐ Oxidized Rhizospheres along Living Roots (C3)  
☐ Presence of Reduced Iron (C4)  
☐ Recent Iron Reduction in Tilled Soils (C6)  
☐ Thin Muck Surface (C7)  
☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)  
☐ Sediment Deposits (B2) (Riverine)  
☐ Drift Deposits (B3) (Riverine)  
☐ Drainage Patterns (B10)  
☐ Dry-Season Water Table (C2)  
☐ Crayfish Burrows (C8)  
☐ Saturation Visible on Aerial Imag.(C9)  
☐ Shallow Aquitard (D3)  
☐ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_  
Water Table Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_  
Saturation Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_  
(includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

No hydrology, very hard and dry.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 5/7/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 13 Sampling Point: 22-N-201209261055  
 Investigators: Trent Toler Section, Township, Range S 15 T 3 R 1  
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): None Slope(%) 0  
 Subregion (LRR): LRR D Lat: 40.9885652273 Long: -111.935123962 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Lakeshore fine sandy loam, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes \_\_\_\_\_ No X  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology X, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> <b>Wetland ID:</b> _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	

Remarks:  
 Well irrigated pasture with some wetland plant species.

## VEGETATION— Use scientific names of plants.

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
Carex praegracilis	60	Y	FACW
Juncus arcticus	20	N	FACW
Festuca arundinacea	15	N	FACU
Thinopyrum ponticum	10	N	UPL
Hordeum jubatum	3	N	FAC
	108	=Total Cover	

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 1 (A)  
 Total Number of Dominant Species Across all Strata: 1 (B)  
 Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>80</u>	x 2 = <u>160</u>
FAC species <u>3</u>	x 3 = <u>9</u>
FACU species <u>15</u>	x 4 = <u>60</u>
UPL species <u>10</u>	x 5 = <u>50</u>
Column Totals: <u>108</u> (A)	<u>279</u> (B)
Prevalence Index = B/A= <u>2.58</u>	

### Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
 Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No \_\_\_\_\_

% Bare Ground in Herb Stratum 0 % Cover of Biotic Crust \_\_\_\_\_

Remarks: (Include photo numbers here or on a separate sheet.)  
 Dominated by field sedge, also with some rush and fescue. Community is hydrophytic.



**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 4	10YR	3 / 2	100				LOAM	Organic root layer
4 to 11	10YR	3 / 1	100				SANDY CLAY LOAM	
11 to 16	10YR	3 / 2	95				SANDY CLAY	
11 to 16	10YR	4 / 2	5				SANDY CLAY	
16 to 19	10YR	5 / 3	100				SANDY CLAY LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)           |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)       |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)   |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)   |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input type="checkbox"/> Depleted Matrix (F3)       |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)     |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)          |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |   |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- |   |
|---|
| <input type="checkbox"/> 1 cm Muck (A9) (LRR C)     |
| <input type="checkbox"/> 2 cm Muck (A10) (LRR B)    |
| <input type="checkbox"/> Reduced Vertic (F18)       |
| <input type="checkbox"/> Red Parent Material (TF2)  |
| <input type="checkbox"/> Other (Explain in Remarks) |

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No X**Remarks:**

Fails to meet the criteria for any hydric indicator. No redox was observed.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- |  |
|--|
| <input type="checkbox"/> Water Marks (B1) (Riverine)             |
| <input type="checkbox"/> Sediment Deposits (B2) (Riverine)       |
| <input type="checkbox"/> Drift Deposits (B3) (Riverine)          |
| <input type="checkbox"/> Drainage Patterns (B10)                 |
| <input type="checkbox"/> Dry-Season Water Table (C2)             |
| <input type="checkbox"/> Crayfish Burrows (C8)                   |
| <input type="checkbox"/> Saturation Visible on Aerial Imag. (C9) |
| <input type="checkbox"/> Shallow Aquitard (D3)                   |
| <input checked="" type="checkbox"/> FAC-Neutral Test (D5)        |

**Field Observations:**

Surface Water Present?	Yes _____ No <u>X</u>	Depth (inches): _____
Water Table Present?	Yes _____ No <u>X</u>	Depth (inches): _____
Saturation Present?	Yes _____ No <u>X</u>	Depth (inches): _____

(includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

**Remarks:**

No wetland hydrology was observed.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 5/7/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 14 Sampling Point: 22-N-201209261345  
 Investigators: Trent Toler Section, Township, Range S 22 T 3 R 1  
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): Convex Slope(%) 1  
 Subregion (LRR): LRR D Lat: 40.9872996822 Long: -111.933748967 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Arave-Saltair complex, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes \_\_\_\_\_ No X  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology X, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> <b>Wetland ID:</b> _____
Hydric Soil Present?	Yes _____ No <u>X</u>	
Wetland Hydrology Present?	Yes _____ No <u>X</u>	

Remarks:  
 Upland edge of a wetland; topography and vegetation change suggested an upland.

## VEGETATION— Use scientific names of plants.

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
Distichlis spicata	25	Y	FAC
Atriplex micrantha	20	Y	UPL
Bromus arvensis	20	Y	FACU
Festuca arundinacea	20	Y	FACU
Bromus tectorum	10	N	UPL
Hordeum jubatum	10	N	FAC
Cichorium intybus	2	N	FACU
	107	=Total Cover	

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 1 (A)  
 Total Number of Dominant Species Across all Strata: 4 (B)  
 Percent of Dominant Species That are OBL, FACW, or FAC: 25.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>0</u>	x 2 = <u>0</u>
FAC species <u>35</u>	x 3 = <u>105</u>
FACU species <u>42</u>	x 4 = <u>168</u>
UPL species <u>30</u>	x 5 = <u>150</u>
Column Totals: <u>107</u> (A)	<u>423</u> (B)
Prevalence Index = B/A= <u>3.95</u>	

### Hydrophytic Vegetation Indicators:

☐ Rapid Test for Hydrophytic Vegetation  
☐ Dominance Test > 50%  
☐ Prevalence Index ≤ 3.0  
☐ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
☐ Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes \_\_\_\_\_ No X

% Bare Ground in Herb Stratum 0 % Cover of Biotic Crust \_\_\_\_\_

Remarks: (Include photo numbers here or on a separate sheet.)

Mix of grasses and weeds, but failed to be hydrophytic.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix			Redox Features				Texture	Remarks
	Color (moist)		%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 5	2.5Y	4 / 2	100					SANDY LOAM	
5 to 13	10YR	3 / 1	99	Gley1 2.5/N	1	C	M	SANDY LOAM	
13 to 16	10YR	3 / 1	85					SANDY CLAY	
13 to 16	7.5YR	4 / 2	15					SANDY CLAY	
16 to 18	7.5YR	4 / 3	70					SANDY CLAY	
16 to 18	10YR	3 / 1	30					SANDY CLAY	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)           |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)       |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)   |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)   |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input type="checkbox"/> Depleted Matrix (F3)       |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)     |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)          |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |   |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)
- ☐ 2 cm Muck (A10) (LRR B)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No X**Remarks:**

Manganese concentrations very sparse, only 1% or less. Fails to meet the criteria for any hydric indicator, even F6.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)
- ☐ Sediment Deposits (B2) (Riverine)
- ☐ Drift Deposits (B3) (Riverine)
- ☐ Drainage Patterns (B10)
- ☒ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present?	Yes _____ No <u>X</u>	Depth (inches): _____
Water Table Present?	Yes <u>X</u> No _____	Depth (inches): <u>16</u>
Saturation Present?	Yes <u>X</u> No _____	Depth (inches): <u>13</u>

(includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

**Remarks:**

Given the time of year (very late summer), the water table at 16 in could qualify for Dry-season Water Table. However, no wetland hydrology was observed.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 6/20/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 13 Sampling Point: 22-W-201206201455  
 Investigators: Mike Perkins Section, Township, Range S 15 T 3 R 1  
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): Concave Slope(%) 1  
 Subregion (LRR): LRR D Lat: 40.9914028282 Long: -111.94079463 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Warm Springs fine sandy loam, saline, sodic, 0 to 1 percent slopes NWI Classification: PEMA  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No        (If No, explain in Remarks)  
 Are Vegetation       , Soil       , Hydrology       , significantly disturbed? Are "Normal Circumstances" present? Yes X No         
 Are Vegetation       , Soil       , Hydrology       , naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No <u>      </u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No <u>      </u> <b>Wetland ID:</b> <u>22-W-27</u>
Hydric Soil Present? Yes <u>X</u> No <u>      </u>	
Wetland Hydrology Present? Yes <u>X</u> No <u>      </u>	

Remarks:  
 Sample point suggests this meadow area adjacent to emergent marsh is a wetland.

## VEGETATION— Use scientific names of plants.

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
<u>Distichlis spicata</u>	<u>50</u>	<u>Y</u>	<u>FAC</u>
<u>Puccinellia nuttalliana</u>	<u>30</u>	<u>Y</u>	<u>FACW</u>
<u>Hordeum jubatum</u>	<u>25</u>	<u>Y</u>	<u>FAC</u>
<u>Lepidium latifolium</u>	<u>5</u>	<u>N</u>	<u>FAC</u>
<u>Thinopyrum intermedium</u>	<u>2</u>	<u>N</u>	<u>UPL</u>
	<u>112</u>	<u>=Total Cover</u>	

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across all Strata: 3 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>30</u>	x 2 = <u>60</u>
FAC species <u>80</u>	x 3 = <u>240</u>
FACU species <u>0</u>	x 4 = <u>0</u>
UPL species <u>2</u>	x 5 = <u>10</u>
Column Totals: <u>112</u> (A)	<u>310</u> (B)

Prevalence Index = B/A = 2.77

### Hydrophytic Vegetation Indicators:

       Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
       Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
       Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No       

% Bare Ground in Herb Stratum 5 % Cover of Biotic Crust

Remarks: (Include photo numbers here or on a separate sheet.)

Hydrophytic wet meadow.



**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)**

Depth (inches)	Matrix			Redox Features				Texture	Remarks
	Color (moist)		%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 2	10YR	3.0/ 2	100					CLAY LOAM	
2 to 15	10YR	3.0/ 2	65	10YR 4/6	3	C	PL	SANDY LOAM	10YR 4/3 20% DM 10YR2/1 10% C M
15 to 22	10YR	4.0/ 3	70	10YR 3/1	30	C	M	COARSE SANDY LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |  |
|--|--|
| <input type="checkbox"/> Histosol (A1)                     | <input checked="" type="checkbox"/> Sandy Redox (S5) |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)        |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)    |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)    |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input type="checkbox"/> Depleted Matrix (F3)        |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)     |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7)  |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)      |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)           |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |  |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- |   |
|---|
| <input type="checkbox"/> 1 cm Muck (A9) (LRR C)     |
| <input type="checkbox"/> 2 cm Muck (A10) (LRR B)    |
| <input type="checkbox"/> Reduced Vertic (F18)       |
| <input type="checkbox"/> Red Parent Material (TF2)  |
| <input type="checkbox"/> Other (Explain in Remarks) |

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes X No \_\_\_\_\_

## Remarks:

Matrix is marbled From 15-22+. Soil meets criteria for hydric indicator S5.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input checked="" type="checkbox"/> Saturation (A3)                | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- |   |
|---|
| <input type="checkbox"/> Water Marks (B1) (Riverine)            |
| <input type="checkbox"/> Sediment Deposits (B2) (Riverine)      |
| <input type="checkbox"/> Drift Deposits (B3) (Riverine)         |
| <input type="checkbox"/> Drainage Patterns (B10)                |
| <input type="checkbox"/> Dry-Season Water Table (C2)            |
| <input type="checkbox"/> Crayfish Burrows (C8)                  |
| <input type="checkbox"/> Saturation Visible on Aerial Imag.(C9) |
| <input type="checkbox"/> Shallow Aquitard (D3)                  |
| <input checked="" type="checkbox"/> FAC-Neutral Test (D5)       |

**Field Observations:**

Surface Water Present?	Yes	____	No	<u>X</u>	Depth (inches):	____	--
Water Table Present?	Yes	____	No	<u>X</u>	Depth (inches):	____	--
Saturation Present?	Yes	<u>X</u>	No	____	Depth (inches):	____	2
(includes capillary fringe)							

**Wetland Hydrology Present?** Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

Hydrology appears influenced by drainage from housing development observed flooding into this wetland marsh.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 6/21/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 13 Sampling Point: 22-W-201206211417  
 Investigators: Mike Perkins Section, Township, Range S 15 T 3 R 1  
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): Concave Slope(%) 1  
 Subregion (LRR): LRR D Lat: 40.9904480588 Long: -111.93853272 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Lakeshore fine sandy loam, 0 to 1 percent slopes NWI Classification: PEMA  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No        (If No, explain in Remarks)  
 Are Vegetation       , Soil       , Hydrology       , significantly disturbed? Are "Normal Circumstances" present? Yes X No         
 Are Vegetation       , Soil       , Hydrology       , naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No <u>      </u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No <u>      </u>  <b>Wetland ID:</b> <u>22-W-27</u>
Hydric Soil Present? Yes <u>X</u> No <u>      </u>	
Wetland Hydrology Present? Yes <u>X</u> No <u>      </u>	

Remarks:  
 Sampling point indicates area is a wetland.

## VEGETATION— Use scientific names of plants.

**Absolute % Cover**    **Dominant Species**    **Indicator Status**

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

Carex nebrascensis	40	Y	OBL
Eleocharis palustris	30	Y	OBL
Poa leptocoma	25	Y	FACW
Juncus arcticus	20	N	FACW
Trifolium fragiferum	20	N	FACU
Hordeum jubatum	5	N	FAC
Polypogon monspeliensis	5	N	FACW
Festuca pratensis	2	N	FACU
Ranunculus alismifolius	2	N	FACW
Thinopyrum intermedium	2	N	UPL
	151	=Total Cover	

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across all Strata: 3 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>70</u>	x 1 = <u>70</u>
FACW species <u>52</u>	x 2 = <u>104</u>
FAC species <u>5</u>	x 3 = <u>15</u>
FACU species <u>22</u>	x 4 = <u>88</u>
UPL species <u>2</u>	x 5 = <u>10</u>
Column Totals: <u>151</u> (A)	<u>287</u> (B)

Prevalence Index = B/A = 1.90

### Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
 Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No       

% Bare Ground in Herb Stratum 5 % Cover of Biotic Crust

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation is hydrophytic.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix			Redox Features				Texture	Remarks
	Color (moist)		%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 4	10YR	3.0 / 1	100					SILTY CLAY LOAM	mostly organic material
4 to 8	10YR	3.0 / 1	99	10YR 4/6	1	C	PL	SILTY CLAY LOAM	
8 to 11	10YR	4.0 / 2	100					SILTY CLAY LOAM	
11 to 20	10YR	4.0 / 1	95	10YR 3/6	5	C	M	SILTY CLAY LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |   |   |
|---|---|
| <input type="checkbox"/> Histosol (A1)                                | <input type="checkbox"/> Sandy Redox (S5)           |
| <input type="checkbox"/> Histic Epipedon (A2)                         | <input type="checkbox"/> Stripped Matrix (S6)       |
| <input type="checkbox"/> Black Histic (A3)                            | <input type="checkbox"/> Loamy Mucky Mineral (F1)   |
| <input type="checkbox"/> Hydrogen Sulfide (A4)                        | <input type="checkbox"/> Loamy Gleyed Matrix (F2)   |
| <input type="checkbox"/> Stratified Layers (A5) LRR C                 | <input type="checkbox"/> Depleted Matrix (F3)       |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D                       | <input type="checkbox"/> Redox Dark Surface (F6)    |
| <input checked="" type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12)                     | <input type="checkbox"/> Redox Depressions (F8)     |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)                     | <input type="checkbox"/> Vernal Pools (F9)          |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)                     |   |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)  
☐ 2 cm Muck (A10) (LRR B)  
☐ Reduced Vertic (F18)  
☐ Red Parent Material (TF2)  
☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes X No \_\_\_\_\_

## Remarks:

0-4 is about 75% organic plant material. Soil meet criteria for hydric indicator A11.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input checked="" type="checkbox"/> Surface Water (A1)             | <input type="checkbox"/> Salt Crust (B11)                              |
| <input checked="" type="checkbox"/> High Water Table (A2)          | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input checked="" type="checkbox"/> Saturation (A3)                | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)  
☐ Sediment Deposits (B2) (Riverine)  
☐ Drift Deposits (B3) (Riverine)  
☐ Drainage Patterns (B10)  
☐ Dry-Season Water Table (C2)  
☐ Crayfish Burrows (C8)  
☐ Saturation Visible on Aerial Imag.(C9)  
☐ Shallow Aquitard (D3)  
☒ FAC-Neutral Test (D5)

**Field Observations:**Surface Water Present? Yes X No \_\_\_\_\_ Depth (inches): 2Water Table Present? Yes X No \_\_\_\_\_ Depth (inches): 0Saturation Present? Yes X No \_\_\_\_\_ Depth (inches): 0

(includes capillary fringe)

**Wetland Hydrology Present?** Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

Area still appears influenced by flowing ditch to North, but Emergent Marsh pond to the West might also back up here.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 6/21/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: \_\_\_\_\_ Sampling Point: 22-W-201206211541  
 Investigators: Mike Perkins Section, Township, Range S 15 T 3 R 1  
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): Concave Slope(%) 1  
 Subregion (LRR): LRR D Lat: 40.9891169474 Long: -111.939369583 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Lakeshore fine sandy loam, 0 to 1 percent slopes NWI Classification: PEMC  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ <b>Wetland ID:</b> <u>22-W-27</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks:  
 Saline meadow adj to Emergent Marsh; higher upland pasture to East.

## VEGETATION— Use scientific names of plants.

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
Distichlis spicata	35	Y	FAC
Phalaris arundinacea	20	Y	FACW
Hordeum jubatum	5	N	FAC
Salicornia rubra	5	N	OBL
	65	=Total Cover	

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across all Strata: 2 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>5</u>	x 1 = <u>5</u>
FACW species <u>20</u>	x 2 = <u>40</u>
FAC species <u>40</u>	x 3 = <u>120</u>
FACU species <u>0</u>	x 4 = <u>0</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>65</u> (A)	<u>165</u> (B)

Prevalence Index = B/A = 2.54

### Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
 Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No \_\_\_\_\_

% Bare Ground in Herb Stratum 30 % Cover of Biotic Crust

Remarks: (Include photo numbers here or on a separate sheet.)



**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix			Redox Features				Texture	Remarks
	Color (moist)		%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 4	10YR	4.0 / 2	90	10YR 4/6	10	C	M	FINE SAND	
4 to 13	10YR	4.0 / 2	80	10YR 2/1	20	C	M	SILTY CLAY LOAM	
13 to 16	2.5YR	4.0 / 3	100		20	C	M	CLAY	
16 to 20	10YR	6.0 / 3	85	10YR 4/3	15	C	M	CLAY	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |  |
|--|--|
| <input type="checkbox"/> Histosol (A1)                     | <input checked="" type="checkbox"/> Sandy Redox (S5) |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)        |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)    |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)    |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input type="checkbox"/> Depleted Matrix (F3)        |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)     |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7)  |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)      |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)           |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |  |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)  
☐ 2 cm Muck (A10) (LRR B)  
☐ Reduced Vertic (F18)  
☐ Red Parent Material (TF2)  
☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes X No \_\_\_\_\_

## Remarks:

Soil meets criteria for hydric indicator S5.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input checked="" type="checkbox"/> Salt Crust (B11)                   |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                           | <input checked="" type="checkbox"/> Aquatic Fauna (B13)                |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- ☒ Water Marks (B1) (Riverine)  
☐ Sediment Deposits (B2) (Riverine)  
☐ Drift Deposits (B3) (Riverine)  
☐ Drainage Patterns (B10)  
☐ Dry-Season Water Table (C2)  
☐ Crayfish Burrows (C8)  
☐ Saturation Visible on Aerial Imag.(C9)  
☐ Shallow Aquitard (D3)  
☒ FAC-Neutral Test (D5)

**Field Observations:**Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Water Table Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Saturation Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_

(includes capillary fringe)

**Wetland Hydrology Present?** Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

Evidence of ponding earlier in season.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 6/22/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 14 Sampling Point: 22-W-201206221256  
 Investigators: Nate Nichols Mike Perkins Section, Township, Range S 22 T 3 R 1  
 Landform (hillslope, terrace, etc.): Basin Local Relief (concave, convex, none): Concave Slope(%) 10  
 Subregion (LRR): LRR D Lat: 40.9859505889 Long: -111.935649489 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Arave-Saltair complex, 0 to 1 percent slopes NWI Classification: PEMC

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No        (If No, explain in Remarks)  
 Are Vegetation       , Soil       , Hydrology       , significantly disturbed? Are "Normal Circumstances" present? Yes X No         
 Are Vegetation       , Soil       , Hydrology       , naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No <u>      </u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No <u>      </u>  <b>Wetland ID:</b> <u>22-W-42</u>
Hydric Soil Present? Yes <u>X</u> No <u>      </u>	
Wetland Hydrology Present? Yes <u>X</u> No <u>      </u>	

Remarks:  
 Emergent marsh wetland.

## VEGETATION— Use scientific names of plants.

**Absolute % Cover** **Dominant Species** **Indicator Status**

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

Phragmites australis	40	Y	FACW
Puccinellia fasciculata	30	Y	OBL
Schoenoplectus pungens	30	Y	OBL
Hordeum jubatum	20	N	FAC
	120	=Total Cover	

### Vine Stratum

## Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 3 (A)  
  
 Total Number of Dominant Species Across all Strata: 3 (B)  
  
 Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

## Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>60</u>	x 1 = <u>60</u>
FACW species <u>40</u>	x 2 = <u>80</u>
FAC species <u>20</u>	x 3 = <u>60</u>
FACU species <u>0</u>	x 4 = <u>0</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>120</u> (A)	<u>200</u> (B)

Prevalence Index = B/A = 1.67

## Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
 Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No       

% Bare Ground in Herb Stratum 0 % Cover of Biotic Crust 0

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation is hydrophytic.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix			Redox Features				Texture	Remarks
	Color (moist)		%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 2	10YR	3.0/ 3	100					FINE SANDY LOAM	
2 to 12	GLE Y 1	2.5/ 10Y	100					SILTY CLAY LOAM	
12 to 14	10YR	2.5/ 2	100					SANDY CLAY LOAM	
14 to 20	10YR	3.0/ 1	100					SANDY CLAY LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)           |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)       |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)   |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)   |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input type="checkbox"/> Depleted Matrix (F3)       |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)     |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)          |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |   |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)  
☐ 2 cm Muck (A10) (LRR B)  
☐ Reduced Vertic (F18)  
☐ Red Parent Material (TF2)  
☒ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes  X  No \_\_\_\_\_**Remarks:**

Soils dark but not obvious indicators, but potentially A12 if soil pit was deep enough. Given fully saturated and inundated conditions and obligate vegetation dominants, soil is likely hydric.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input checked="" type="checkbox"/> Surface Water (A1)             | <input type="checkbox"/> Salt Crust (B11)                              |
| <input checked="" type="checkbox"/> High Water Table (A2)          | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input checked="" type="checkbox"/> Saturation (A3)                | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)  
☐ Sediment Deposits (B2) (Riverine)  
☐ Drift Deposits (B3) (Riverine)  
☒ Drainage Patterns (B10)  
☐ Dry-Season Water Table (C2)  
☐ Crayfish Burrows (C8)  
☐ Saturation Visible on Aerial Imag.(C9)  
☐ Shallow Aquitard (D3)  
☒ FAC-Neutral Test (D5)

**Field Observations:**Surface Water Present? Yes  X  No \_\_\_\_\_ Depth (inches):  0 Water Table Present? Yes  X  No \_\_\_\_\_ Depth (inches):  4 Saturation Present? Yes  X  No \_\_\_\_\_ Depth (inches):  0 

(includes capillary fringe)

**Wetland Hydrology Present?** Yes  X  No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

**Remarks:**

Wetland hydrology observed.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 6/25/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 14 Sampling Point: 22-W-201206251045  
 Investigators: Donovan Gross Nate Nichols Section, Township, Range S 22 T 3 R 1  
 Landform (hillslope, terrace, etc.): Basin Local Relief (concave, convex, none): Concave Slope(%) 5  
 Subregion (LRR): \_\_\_\_\_ Lat: 40.984259898 Long: -111.93786849 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Arave-Saltair complex, 0 to 1 percent slopes NWI Classification: PEMC

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ Wetland ID: <u>22-W-44</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks:  
 Wetland data point.

## VEGETATION— Use scientific names of plants.

**Absolute % Cover** **Dominant Species** **Indicator Status**

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

Puccinellia nuttalliana	70	Y	FACW
Hordeum jubatum	30	Y	FAC
	100	=Total Cover	

### Vine Stratum

## Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across all Strata: 2 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

## Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>70</u>	x 2 = <u>140</u>
FAC species <u>30</u>	x 3 = <u>90</u>
FACU species <u>0</u>	x 4 = <u>0</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>100</u> (A)	<u>230</u> (B)

Prevalence Index = B/A = 2.30

## Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
 Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No \_\_\_\_\_

% Bare Ground in Herb Stratum 25 % Cover of Biotic Crust 10

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation is hydrophytic.



**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 2	/	100					SILT LOAM	Root mass
2 to 4	10YR 3.0/ 2	100					SILT LOAM	
4 to 6	GLEYS 1 5.0/ 10Y	100					CLAY	
6 to 10	10YR 5.0/ 2	40	10YR 2/1	60	CS	M	SILT LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |  |
|--|--|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)                    |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)                |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)            |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input checked="" type="checkbox"/> Loamy Gleyed Matrix (F2) |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input type="checkbox"/> Depleted Matrix (F3)                |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)             |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7)          |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)              |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)                   |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |  |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- |   |
|---|
| <input type="checkbox"/> 1 cm Muck (A9) (LRR C)     |
| <input type="checkbox"/> 2 cm Muck (A10) (LRR B)    |
| <input type="checkbox"/> Reduced Vertic (F18)       |
| <input type="checkbox"/> Red Parent Material (TF2)  |
| <input type="checkbox"/> Other (Explain in Remarks) |

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.☒ **Restrictive Layer (if observed):**Type: calcicDepth (inches): 6**Hydric Soil Present?** Yes X No     

## Remarks:

Soil meets criteria for hydric indicator F2.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input checked="" type="checkbox"/> Biotic Crust (B12)                 |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input checked="" type="checkbox"/> Surface Soil Cracks (B6)       | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- |   |
|---|
| <input type="checkbox"/> Water Marks (B1) (Riverine)            |
| <input type="checkbox"/> Sediment Deposits (B2) (Riverine)      |
| <input type="checkbox"/> Drift Deposits (B3) (Riverine)         |
| <input type="checkbox"/> Drainage Patterns (B10)                |
| <input type="checkbox"/> Dry-Season Water Table (C2)            |
| <input type="checkbox"/> Crayfish Burrows (C8)                  |
| <input type="checkbox"/> Saturation Visible on Aerial Imag.(C9) |
| <input type="checkbox"/> Shallow Aquitard (D3)                  |
| <input checked="" type="checkbox"/> FAC-Neutral Test (D5)       |

**Field Observations:**Surface Water Present? Yes      No X Depth (inches):     Water Table Present? Yes      No X Depth (inches):     Saturation Present? Yes      No X Depth (inches):     

(includes capillary fringe)

**Wetland Hydrology Present?** Yes X No     

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

Wetland hydrology indicators present.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 5/7/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 14 Sampling Point: 22-W-201209261442  
 Investigators: Trent Toler Section, Township, Range S 22 T 3 R 1  
 Landform (hillslope, terrace, etc.): Depression Local Relief (concave, convex, none): None Slope(%) 0  
 Subregion (LRR): LRR D Lat: 40.9872533932 Long: -111.933782794 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Arave-Saltair complex, 0 to 1 percent slopes NWI Classification: PEMC  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No        (If No, explain in Remarks)  
 Are Vegetation       , Soil       , Hydrology       , significantly disturbed? Are "Normal Circumstances" present? Yes X No         
 Are Vegetation       , Soil       , Hydrology       , naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No <u>      </u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No <u>      </u> <b>Wetland ID:</b> <u>22-W-55</u>
Hydric Soil Present? Yes <u>X</u> No <u>      </u>	
Wetland Hydrology Present? Yes <u>X</u> No <u>      </u>	

Remarks:  
 Wetland meadow with some emergent marsh in the middle of entire wetland supported by a drainage from the north. Wetland connects to the lake shore wetlands to the south.

## VEGETATION— Use scientific names of plants.

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
Distichlis spicata	75	Y	FAC
Puccinellia nuttalliana	20	N	FACW
Hordeum jubatum	5	N	FAC
Spergularia maritima	3	N	FACW
Suaeda calceoliformis	3	N	FACW
	106	=Total Cover	

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across all Strata: 1 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>26</u>	x 2 = <u>52</u>
FAC species <u>80</u>	x 3 = <u>240</u>
FACU species <u>0</u>	x 4 = <u>0</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>106</u> (A)	<u>292</u> (B)

Prevalence Index = B/A = 2.75

### Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
 Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No       

% Bare Ground in Herb Stratum 0 % Cover of Biotic Crust       

Remarks: (Include photo numbers here or on a separate sheet.)  
 Salt grass dominated wet meadow. Some tall emergent vegetation in the central part of the wetland.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks	
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>			
0 to 3	2.5Y	4 / 2	100				SANDY CLAY LOAM		
3 to 9	10YR	3 / 2	70	Gley1 2.5/N	30	C	M	SANDY CLAY	
9 to 16	10YR	3 / 2	100					SANDY CLAY	
16 to 19	10YR	4 / 1	60	10YR 5/4	40	C	M	SANDY CLAY	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)                   |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)               |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)           |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)           |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input type="checkbox"/> Depleted Matrix (F3)               |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input checked="" type="checkbox"/> Redox Dark Surface (F6) |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7)         |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)             |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)                  |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |   |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- |   |
|---|
| <input type="checkbox"/> 1 cm Muck (A9) (LRR C)     |
| <input type="checkbox"/> 2 cm Muck (A10) (LRR B)    |
| <input type="checkbox"/> Reduced Vertic (F18)       |
| <input type="checkbox"/> Red Parent Material (TF2)  |
| <input type="checkbox"/> Other (Explain in Remarks) |

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes X No \_\_\_\_\_

## Remarks:

3-9 in. layer meets criteria for hydric indicator F6.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input checked="" type="checkbox"/> High Water Table (A2)          | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input checked="" type="checkbox"/> Saturation (A3)                | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- |   |
|---|
| <input type="checkbox"/> Water Marks (B1) (Riverine)            |
| <input type="checkbox"/> Sediment Deposits (B2) (Riverine)      |
| <input type="checkbox"/> Drift Deposits (B3) (Riverine)         |
| <input type="checkbox"/> Drainage Patterns (B10)                |
| <input type="checkbox"/> Dry-Season Water Table (C2)            |
| <input type="checkbox"/> Crayfish Burrows (C8)                  |
| <input type="checkbox"/> Saturation Visible on Aerial Imag.(C9) |
| <input type="checkbox"/> Shallow Aquitard (D3)                  |
| <input checked="" type="checkbox"/> FAC-Neutral Test (D5)       |

**Field Observations:**Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Water Table Present? Yes X No \_\_\_\_\_ Depth (inches): 11Saturation Present? Yes X No \_\_\_\_\_ Depth (inches): 8

(includes capillary fringe)

**Wetland Hydrology Present?** Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

Both indicators high water table and saturation indicate wetland hydrology. Hydrology source of wetland is a drainage emptying into wetland on the north side; likely stormwater and irrigation return water, along with irrigation run-off from adjacent development.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 6/14/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 13 Sampling Point: 20-N-201206141245  
 Investigators: Donovan Gross Mike Perkins Section, Township, Range S 15 T 3 R 1  
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): None Slope(%) 0  
 Subregion (LRR): LRR D Lat: 40.9944685632 Long: -111.942656006 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Arave-Saltair complex, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland?	Yes _____ No <u>X</u>
Hydric Soil Present?	Yes _____ No <u>X</u>		
Wetland Hydrology Present?	Yes _____ No <u>X</u>		Wetland ID: _____

Remarks:  
 Not full sample point because dominant vegetation is not hydrophytic; just an irrigation ditch through upland.

## VEGETATION— Use scientific names of plants.

	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
<u>Tree Stratum</u>			
<u>Shrub Stratum</u>			
<u>Herb Stratum</u> (Plot size: <u>30 Ft</u> )			
Trifolium repens	35	Y	FACU
Bromus inermis	20	Y	FACU
Festuca pratensis	20	Y	FACU
	75	=Total Cover	
<u>Vine Stratum</u>			

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 0 (A)  
 Total Number of Dominant Species Across all Strata: 3 (B)  
 Percent of Dominant Species That are OBL, FACW, or FAC: 0.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>0</u>	x 2 = <u>0</u>
FAC species <u>0</u>	x 3 = <u>0</u>
FACU species <u>75</u>	x 4 = <u>300</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>75</u> (A)	<u>300</u> (B)
Prevalence Index = B/A= <u>4.00</u>	

### Hydrophytic Vegetation Indicators:

\_\_\_\_ Rapid Test for Hydrophytic Vegetation  
 \_\_\_\_ Dominance Test > 50%  
 \_\_\_\_ Prevalence Index ≤ 3.0  
 \_\_\_\_ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 \_\_\_\_ Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

% Bare Ground in Herb Stratum \_\_\_\_\_ % Cover of Biotic Crust \_\_\_\_\_

Hydrophytic Vegetation Present? Yes \_\_\_\_\_ No X

Remarks: (Include photo numbers here or on a separate sheet.)



**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)           |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)       |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)   |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)   |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input type="checkbox"/> Depleted Matrix (F3)       |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)     |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)          |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |   |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)
- ☐ 2 cm Muck (A10) (LRR B)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No X**Remarks:**

No soil data collected because vegetation is upland.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)
- ☐ Sediment Deposits (B2) (Riverine)
- ☐ Drift Deposits (B3) (Riverine)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

**Field Observations:**Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Water Table Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Saturation Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_

(includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

**Remarks:**

No hydrology, upland point.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 6/14/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 13 Sampling Point: 20-N-201206141403  
 Investigators: Donovan Gross Mike Perkins Section, Township, Range S 15 T 3 R 1  
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): Convex Slope(%) 1  
 Subregion (LRR): LRR D Lat: 40.9937070003 Long: -111.943362984 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Arave-Saltair complex, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> <b>Wetland ID:</b> _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	

Remarks:  
 "out point " not a full sample point because vegetation is NOT hydrophytic.

## VEGETATION— Use scientific names of plants.

**Absolute % Cover** **Dominant Species** **Indicator Status**

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

Trifolium fragiferum	35	Y	FACU
Festuca pratensis	25	Y	FACU
Hordeum jubatum	20	Y	FAC
Lepidium latifolium	5	N	FAC
Ranunculus alismifolius	5	N	FACW
	90	=Total Cover	

### Vine Stratum

## Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across all Strata: 3 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 33.3% (A/B)

## Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>5</u>	x 2 = <u>10</u>
FAC species <u>25</u>	x 3 = <u>75</u>
FACU species <u>60</u>	x 4 = <u>240</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>90</u> (A)	<u>325</u> (B)

Prevalence Index = B/A= 3.61

## Hydrophytic Vegetation Indicators:

☐ Rapid Test for Hydrophytic Vegetation  
☐ Dominance Test > 50%  
☐ Prevalence Index ≤ 3.0  
☐ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
☐ Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes \_\_\_\_\_ No X

% Bare Ground in Herb Stratum 5 % Cover of Biotic Crust \_\_\_\_\_

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation is not hydrophytic.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)           |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)       |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)   |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)   |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input type="checkbox"/> Depleted Matrix (F3)       |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)     |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)          |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |   |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)
- ☐ 2 cm Muck (A10) (LRR B)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No X**Remarks:**

No soil data collected because vegetation is upland.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)
- ☐ Sediment Deposits (B2) (Riverine)
- ☐ Drift Deposits (B3) (Riverine)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

**Field Observations:**Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Water Table Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Saturation Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_

(includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

**Remarks:**

No hydrology indicators present.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 6/15/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 13 Sampling Point: 20-N-201206150915  
 Investigators: Trent Toler Section, Township, Range S 15 T 3 R 1  
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): None Slope(%) 0  
 Subregion (LRR): LRR D Lat: 40.9955354888 Long: -111.944165698 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Arave-Saltair complex, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil X, Hydrology X, significantly disturbed? Are "Normal Circumstances" present? Yes \_\_\_\_\_ No X  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> <b>Wetland ID:</b> _____
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes _____ No <u>X</u>	

Remarks:  
 Area shows signs of being a wetland some time ago, but mink farm fill has been dumped in the area for some time now, and buried what might have been a wetland.

## VEGETATION— Use scientific names of plants.

	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
<u>Tree Stratum</u>			
<u>Shrub Stratum</u>			
<u>Herb Stratum</u> (Plot size: <u>30 Ft</u> )			
Phragmites australis	50	Y	FACW
Atriplex micrantha	35	Y	UPL
Hordeum jubatum	10	N	FAC
Bromus tectorum	5	N	UPL
Conium maculatum	3	N	FACW
	103	=Total Cover	

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 1 (A)  
 Total Number of Dominant Species Across all Strata: 2 (B)  
 Percent of Dominant Species That are OBL, FACW, or FAC: 50.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>53</u>	x 2 = <u>106</u>
FAC species <u>10</u>	x 3 = <u>30</u>
FACU species <u>0</u>	x 4 = <u>0</u>
UPL species <u>40</u>	x 5 = <u>200</u>
Column Totals: <u>103</u> (A)	<u>336</u> (B)
Prevalence Index = B/A= <u>3.26</u>	

### Hydrophytic Vegetation Indicators:

☐ Rapid Test for Hydrophytic Vegetation  
☐ Dominance Test > 50%  
☐ Prevalence Index ≤ 3.0  
☐ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
☐ Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes \_\_\_\_\_ No X

% Bare Ground in Herb Stratum 0 % Cover of Biotic Crust \_\_\_\_\_

Remarks: (Include photo numbers here or on a separate sheet.)  
 mix of upland weeds and persistent Phragmites.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix			Redox Features				Texture	Remarks
	Color (moist)		%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 7	10YR	3.0/ 3	100						organic farm fill
7 to 11	10YR	5.0/ 3	75	7.5 YR 6/4	25	C	M	SANDY CLAY LOAM	
11 to 18	2.5Y	4.0/ 2	97	10YR 5/6	3	C	M	CLAY LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- ☐ Histosol (A1)  
☐ Histic Epipedon (A2)  
☐ Black Histic (A3)  
☐ Hydrogen Sulfide (A4)  
☐ Stratified Layers (A5) LRR C  
☐ 1 cm Muck (A9) LRR F D  
☐ Depleted Below Dark Surface (A11)  
☐ Thick Dark Surface (A12)  
☐ Sandy Mucky Mineral (S1)  
☐ Sandy Gleyed Matrix (S4)

- ☐ Sandy Redox (S5)  
☐ Stripped Matrix (S6)  
☐ Loamy Mucky Mineral (F1)  
☐ Loamy Gleyed Matrix (F2)  
☒ Depleted Matrix (F3)  
☐ Redox Dark Surface (F6)  
☐ Depleted Dark Surface (F7)  
☐ Redox Depressions (F8)  
☐ Vernal Pools (F9)

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)  
☐ 2 cm Muck (A10) (LRR B)  
☐ Reduced Vertic (F18)  
☐ Red Parent Material (TF2)  
☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes X No \_\_\_\_\_**Remarks:**

Soil meets criteria for hydric indicator F3, even though layer begins a little deep because of the fill. Mink farm fill has recently buried the wetland.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)  
☐ High Water Table (A2)  
☐ Saturation (A3)  
☐ Water Marks (B1) (Nonriverine)  
☐ Sediment Deposits (B2) (Nonriverine)  
☐ Drift Deposits (B3) (Nonriverine)  
☐ Surface Soil Cracks (B6)  
☐ Inundation Visible on Aerial Imagery (B7)  
☐ Water-Stained Leaves (B9)  
☐ Salt Crust (B11)  
☐ Biotic Crust (B12)  
☐ Aquatic Fauna (B13)  
☐ Hydrogen Sulfide Odor (C1)  
☐ Oxidized Rhizospheres along Living Roots (C3)  
☐ Presence of Reduced Iron (C4)  
☐ Recent Iron Reduction in Tilled Soils (C6)  
☐ Thin Muck Surface (C7)  
☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)  
☐ Sediment Deposits (B2) (Riverine)  
☐ Drift Deposits (B3) (Riverine)  
☐ Drainage Patterns (B10)  
☐ Dry-Season Water Table (C2)  
☐ Crayfish Burrows (C8)  
☐ Saturation Visible on Aerial Imag.(C9)  
☐ Shallow Aquitard (D3)  
☐ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_

Water Table Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_

Saturation Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_

(includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

**Remarks:**

Only slightly damp at 17 in.



# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 6/15/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 13 Sampling Point: 20-N-201206151004  
 Investigators: Trent Toler Section, Township, Range S 15 T 3 R 1  
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): Concave Slope(%) 0  
 Subregion (LRR): LRR D Lat: 40.9956308682 Long: -111.944256202 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Arave-Saltair complex, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil X, Hydrology X, significantly disturbed? Are "Normal Circumstances" present? Yes \_\_\_\_\_ No X  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> <b>Wetland ID:</b> _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	

Remarks:  
 Area that might have been a wetland, but organic farm fill has been dumped and hydrology cutoff.

## VEGETATION— Use scientific names of plants.

	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
<u>Tree Stratum</u>			
<u>Shrub Stratum</u>			
<u>Herb Stratum</u> (Plot size: <u>30 Ft</u> )			
<u>Distichlis spicata</u>	<u>35</u>	<u>Y</u>	<u>FAC</u>
<u>Bassia scoparia</u>	<u>25</u>	<u>Y</u>	<u>FAC</u>
<u>Hordeum jubatum</u>	<u>20</u>	<u>N</u>	<u>FAC</u>
<u>Chenopodium chenopodioides</u>	<u>10</u>	<u>N</u>	<u>FACW</u>
<u>Atriplex micrantha</u>	<u>5</u>	<u>N</u>	<u>UPL</u>
<u>Phragmites australis</u>	<u>3</u>	<u>N</u>	<u>FACW</u>
<u>Salicornia rubra</u>	<u>3</u>	<u>N</u>	<u>OBL</u>
	<u>101</u> =Total Cover		
<u>Vine Stratum</u>			

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 2 (A)  
 Total Number of Dominant Species Across all Strata: 2 (B)  
 Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>3</u>	x 1 = <u>3</u>
FACW species <u>13</u>	x 2 = <u>26</u>
FAC species <u>80</u>	x 3 = <u>240</u>
FACU species <u>0</u>	x 4 = <u>0</u>
UPL species <u>5</u>	x 5 = <u>25</u>
Column Totals: <u>101</u> (A)	<u>294</u> (B)
Prevalence Index = B/A= <u>2.91</u>	

### Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
 Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No \_\_\_\_\_

% Bare Ground in Herb Stratum 20 % Cover of Biotic Crust

Remarks: (Include photo numbers here or on a separate sheet.)

Chenopodium sp. may be wrong, other FAC dominated.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 4	10YR 3.0/ 3	100		30	C	M	CLAY LOAM	
4 to 7	10YR 4.0/ 3	100	10YR 6/6	1	C	M	SANDY CLAY LOAM	
7 to 9	10YR 5.0/ 3	95	10YR 6/4	3	C	M	SANDY CLAY LOAM	
9 to 17	10YR 6.0/ 3	55	7.5 YR 6/6	5	C	M	SANDY LOAM	
9 to 17	/		2.5Y 4/1	40	C	M	SANDY LOAM	
17 to 19	10YR 2/ 1	80	10YR 7/1	20	D	M	SANDY CLAY LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)           |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)       |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)   |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)   |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input type="checkbox"/> Depleted Matrix (F3)       |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)     |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)          |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |   |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- |   |
|---|
| <input type="checkbox"/> 1 cm Muck (A9) (LRR C)     |
| <input type="checkbox"/> 2 cm Muck (A10) (LRR B)    |
| <input type="checkbox"/> Reduced Vertic (F18)       |
| <input type="checkbox"/> Red Parent Material (TF2)  |
| <input type="checkbox"/> Other (Explain in Remarks) |

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No X**Remarks:**

Soil profile does not meet criteria for hydric indicators (matrix chroma 3).

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- |   |
|---|
| <input type="checkbox"/> Water Marks (B1) (Riverine)            |
| <input type="checkbox"/> Sediment Deposits (B2) (Riverine)      |
| <input type="checkbox"/> Drift Deposits (B3) (Riverine)         |
| <input type="checkbox"/> Drainage Patterns (B10)                |
| <input type="checkbox"/> Dry-Season Water Table (C2)            |
| <input type="checkbox"/> Crayfish Burrows (C8)                  |
| <input type="checkbox"/> Saturation Visible on Aerial Imag.(C9) |
| <input type="checkbox"/> Shallow Aquitard (D3)                  |
| <input type="checkbox"/> FAC-Neutral Test (D5)                  |

**Field Observations:**

Surface Water Present?	Yes _____ No <u>X</u>	Depth (inches):	_____
Water Table Present?	Yes _____ No <u>X</u>	Depth (inches):	_____
Saturation Present?	Yes _____ No <u>X</u>	Depth (inches):	_____

(includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

**Remarks:**

Very damp at 18 inches, but not saturated.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 6/15/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 13 Sampling Point: 20-N-201206151308  
 Investigators: Mike Perkins Section, Township, Range S 15 T 3 R 1  
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): Convex Slope(%) 1  
 Subregion (LRR): LRR D Lat: 40.9939400907 Long: -111.940498229 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Warm Springs fine sandy loam, saline, sodic, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland?	Yes _____ No <u>X</u>
Hydric Soil Present?	Yes _____ No <u>X</u>		
Wetland Hydrology Present?	Yes _____ No <u>X</u>		Wetland ID: _____

Remarks:  
 Not full sample point because vegetation is NOT hydrophytic; just irrigation/drainage 3 'ditch center

## VEGETATION— Use scientific names of plants.

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
Trifolium fragiferum	95	Y	FACU
Hordeum jubatum	2	N	FAC
Atriplex micrantha	1	N	UPL
Poa pratensis	1	N	FAC
Puccinellia nuttalliana	1	N	FACW
	100	=Total Cover	

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species  
That are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant  
Species Across all Strata: 1 (B)

Percent of Dominant Species  
That are OBL, FACW, or FAC: 0.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>1</u>	x 2 = <u>2</u>
FAC species <u>3</u>	x 3 = <u>9</u>
FACU species <u>95</u>	x 4 = <u>380</u>
UPL species <u>1</u>	x 5 = <u>5</u>
Column Totals: <u>100</u> (A)	<u>396</u> (B)

Prevalence Index = B/A= 3.96

### Hydrophytic Vegetation Indicators:

☐ Rapid Test for Hydrophytic Vegetation  
☐ Dominance Test > 50%  
☐ Prevalence Index ≤ 3.0  
☐ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
☐ Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic  
Vegetation Present? Yes \_\_\_\_\_ No X

% Bare Ground in Herb Stratum 5 % Cover of Biotic Crust

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation not hydrophytic.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)           |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)       |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)   |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)   |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input type="checkbox"/> Depleted Matrix (F3)       |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)     |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)          |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |   |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)
- ☐ 2 cm Muck (A10) (LRR B)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No X**Remarks:**

No soil data collected because vegetation is upland.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)
- ☐ Sediment Deposits (B2) (Riverine)
- ☐ Drift Deposits (B3) (Riverine)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

**Field Observations:**Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Water Table Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Saturation Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_

(includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

**Remarks:**

No hydrology indicators present.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 6/15/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 13 Sampling Point: 20-N-201206151415  
 Investigators: Mike Perkins Section, Township, Range S 15 T 3 R 1  
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): Convex Slope(%) 1  
 Subregion (LRR): LRR D Lat: 40.9932549449 Long: -111.942673096 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Warm Springs fine sandy loam, saline, sodic, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> Wetland ID: _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	

Remarks:  
 "out" not full sample point because vegetation is NOT hydrophytic.

## VEGETATION— Use scientific names of plants.

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
Trifolium fragiferum	60	Y	FACU
Festuca pratensis	35	Y	FACU
Hordeum jubatum	10	N	FAC
Polypogon monspeliensis	5	N	FACW
Distichlis spicata	2	N	FAC
	112	=Total Cover	

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 0 (A)  
 Total Number of Dominant Species Across all Strata: 2 (B)  
 Percent of Dominant Species That are OBL, FACW, or FAC: 0.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>5</u>	x 2 = <u>10</u>
FAC species <u>12</u>	x 3 = <u>36</u>
FACU species <u>95</u>	x 4 = <u>380</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>112</u> (A)	<u>426</u> (B)
Prevalence Index = B/A= <u>3.80</u>	

### Hydrophytic Vegetation Indicators:

☐ Rapid Test for Hydrophytic Vegetation  
☐ Dominance Test > 50%  
☐ Prevalence Index ≤ 3.0  
☐ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
☐ Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes \_\_\_\_\_ No X

% Bare Ground in Herb Stratum \_\_\_\_\_ % Cover of Biotic Crust \_\_\_\_\_

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation is not hydrophytic.



**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)           |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)       |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)   |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)   |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input type="checkbox"/> Depleted Matrix (F3)       |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)     |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)          |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |   |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- |   |
|---|
| <input type="checkbox"/> 1 cm Muck (A9) (LRR C)     |
| <input type="checkbox"/> 2 cm Muck (A10) (LRR B)    |
| <input type="checkbox"/> Reduced Vertic (F18)       |
| <input type="checkbox"/> Red Parent Material (TF2)  |
| <input type="checkbox"/> Other (Explain in Remarks) |

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No X**Remarks:**

No soil data collected because the vegetation is upland.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- |   |
|---|
| <input type="checkbox"/> Water Marks (B1) (Riverine)            |
| <input type="checkbox"/> Sediment Deposits (B2) (Riverine)      |
| <input type="checkbox"/> Drift Deposits (B3) (Riverine)         |
| <input type="checkbox"/> Drainage Patterns (B10)                |
| <input type="checkbox"/> Dry-Season Water Table (C2)            |
| <input type="checkbox"/> Crayfish Burrows (C8)                  |
| <input type="checkbox"/> Saturation Visible on Aerial Imag.(C9) |
| <input type="checkbox"/> Shallow Aquitard (D3)                  |
| <input type="checkbox"/> FAC-Neutral Test (D5)                  |

**Field Observations:**Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Water Table Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Saturation Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_

(includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

**Remarks:**

No hydrology indicators present.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 6/18/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: \_\_\_\_\_ Sampling Point: 20-N-201206180952  
 Investigators: Trent Toler Section, Township, Range S 15 T 3 R 1  
 Landform (hillslope, terrace, etc.): Terrace Local Relief (concave, convex, none): Concave Slope(%) 2  
 Subregion (LRR): LRR D Lat: 40.9968146824 Long: -111.939577417 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Warm Springs fine sandy loam, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes \_\_\_\_\_ No X  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology X, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> Wetland ID: _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks:  
 Low swale where irrigation water flows thru. Mix of Facu, FAC, and FACW veg.

## VEGETATION— Use scientific names of plants.

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
<u>Festuca pratensis</u>	<u>30</u>	<u>Y</u>	<u>FACU</u>
<u>Hordeum jubatum</u>	<u>30</u>	<u>Y</u>	<u>FAC</u>
<u>Trifolium fragiferum</u>	<u>20</u>	<u>N</u>	<u>FACU</u>
<u>Juncus arcticus</u>	<u>10</u>	<u>N</u>	<u>FACW</u>
<u>Puccinellia nuttalliana</u>	<u>10</u>	<u>N</u>	<u>FACW</u>
<u>Carex nebrascensis</u>	<u>5</u>	<u>N</u>	<u>OBL</u>
	<u>105</u>	<u>=Total Cover</u>	

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across all Strata: 2 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 50.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>5</u>	x 1 = <u>5</u>
FACW species <u>20</u>	x 2 = <u>40</u>
FAC species <u>30</u>	x 3 = <u>90</u>
FACU species <u>50</u>	x 4 = <u>200</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>105</u> (A)	<u>335</u> (B)

Prevalence Index = B/A = 3.19

### Hydrophytic Vegetation Indicators:

☐ Rapid Test for Hydrophytic Vegetation  
☐ Dominance Test > 50%  
☐ Prevalence Index ≤ 3.0  
☐ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
☐ Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes \_\_\_\_\_ No X

% Bare Ground in Herb Stratum 5 % Cover of Biotic Crust

Remarks: (Include photo numbers here or on a separate sheet.)  
 mix of veg.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 4	10YR 3.0/ 1	100					LOAM	
4 to 10	10YR 4.0/ 2	100					LOAM	
10 to 14	10YR 4.0/ 1	95	10YR 7/1	5	C	M	SANDY CLAY LOAM	
14 to 19	10YR 3.0/ 1	45	7.5 YR 8/1	5	D	M	SANDY CLAY LOAM	
19 to 19	7.5YR 7.0/ 2	30					SANDY CLAY LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)           |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)       |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)   |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)   |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input type="checkbox"/> Depleted Matrix (F3)       |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)     |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)          |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |   |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- |   |
|---|
| <input type="checkbox"/> 1 cm Muck (A9) (LRR C)     |
| <input type="checkbox"/> 2 cm Muck (A10) (LRR B)    |
| <input type="checkbox"/> Reduced Vertic (F18)       |
| <input type="checkbox"/> Red Parent Material (TF2)  |
| <input type="checkbox"/> Other (Explain in Remarks) |

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No X

## Remarks:

Close to hydric but did not meet any indicators.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input checked="" type="checkbox"/> Surface Water (A1)             | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- |  |
|--|
| <input type="checkbox"/> Water Marks (B1) (Riverine)             |
| <input type="checkbox"/> Sediment Deposits (B2) (Riverine)       |
| <input type="checkbox"/> Drift Deposits (B3) (Riverine)          |
| <input type="checkbox"/> Drainage Patterns (B10)                 |
| <input type="checkbox"/> Dry-Season Water Table (C2)             |
| <input type="checkbox"/> Crayfish Burrows (C8)                   |
| <input type="checkbox"/> Saturation Visible on Aerial Imag. (C9) |
| <input type="checkbox"/> Shallow Aquitard (D3)                   |
| <input type="checkbox"/> FAC-Neutral Test (D5)                   |

**Field Observations:**

Surface Water Present?	Yes	<u>X</u>	No	_____	Depth (inches):	<u>3</u>
Water Table Present?	Yes	<u>X</u>	No	_____	Depth (inches):	<u>17</u>
Saturation Present?	Yes	_____	No	<u>X</u>	Depth (inches):	<u>--</u>

(includes capillary fringe)

**Wetland Hydrology Present?** Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

flowing surface water but gw much lower. Saturation level difficult to measure.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 6/18/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: \_\_\_\_\_ Sampling Point: 20-N-201206181044  
 Investigators: Trent Toler Section, Township, Range S 15 T 3 R 1  
 Landform (hillslope, terrace, etc.): Hill Slope Local Relief (concave, convex, none): Convex Slope(%) 2  
 Subregion (LRR): LRR D Lat: 40.9966321195 Long: -111.938500814 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Warm Springs fine sandy loam, saline, sodic, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes \_\_\_\_\_ No X  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology X, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> Wetland ID: _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks:  
 Well irrigated pasture, data point in slight depression where water collects.

## VEGETATION— Use scientific names of plants.

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
Bromus arvensis	30	Y	FACU
Festuca pratensis	30	Y	FACU
Hordeum jubatum	20	N	FAC
Hordeum pusillum	10	N	FACU
Trifolium fragiferum	10	N	FACU
Juncus arcticus	5	N	FACW
	105	=Total Cover	

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 2 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 0.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>5</u>	x 2 = <u>10</u>
FAC species <u>20</u>	x 3 = <u>60</u>
FACU species <u>80</u>	x 4 = <u>320</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>105</u> (A)	<u>390</u> (B)

Prevalence Index = B/A = 3.71

### Hydrophytic Vegetation Indicators:

☐ Rapid Test for Hydrophytic Vegetation  
☐ Dominance Test > 50%  
☐ Prevalence Index ≤ 3.0  
☐ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
☐ Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes \_\_\_\_\_ No X

% Bare Ground in Herb Stratum \_\_\_\_\_ % Cover of Biotic Crust \_\_\_\_\_

Remarks: (Include photo numbers here or on a separate sheet.)  
 mostly FACU spp. w/ a few others in wetter depression.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix			Redox Features				Texture	Remarks
	Color (moist)		%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 5	10YR	3.0/ 1	100	10YR 4/4	2	C	M	LOAM	
5 to 13	10YR	3.0/ 1	100		20	C	M	LOAM	
13 to 20	10YR	3.0/ 1	30	10YR 4/2	70	RM	M	SANDY CLAY LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- ☐ Histosol (A1)  
☐ Histic Epipedon (A2)  
☐ Black Histic (A3)  
☐ Hydrogen Sulfide (A4)  
☐ Stratified Layers (A5) LRR C  
☐ 1 cm Muck (A9) LRR F D  
☐ Depleted Below Dark Surface (A11)  
☐ Thick Dark Surface (A12)  
☐ Sandy Mucky Mineral (S1)  
☐ Sandy Gleyed Matrix (S4)

- ☐ Sandy Redox (S5)  
☐ Stripped Matrix (S6)  
☐ Loamy Mucky Mineral (F1)  
☐ Loamy Gleyed Matrix (F2)  
☐ Depleted Matrix (F3)  
☐ Redox Dark Surface (F6)  
☐ Depleted Dark Surface (F7)  
☐ Redox Depressions (F8)  
☐ Vernal Pools (F9)

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)  
☐ 2 cm Muck (A10) (LRR B)  
☐ Reduced Vertic (F18)  
☐ Red Parent Material (TF2)  
☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No X

## Remarks:

Because of slight depression, soils were approaching F8 but did not meet hydric indicator.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- ☒ Surface Water (A1)  
☐ High Water Table (A2)  
☐ Saturation (A3)  
☐ Water Marks (B1) (Nonriverine)  
☐ Sediment Deposits (B2) (Nonriverine)  
☐ Drift Deposits (B3) (Nonriverine)  
☐ Surface Soil Cracks (B6)  
☐ Inundation Visible on Aerial Imagery (B7)  
☐ Water-Stained Leaves (B9)  
☐ Salt Crust (B11)  
☐ Biotic Crust (B12)  
☐ Aquatic Fauna (B13)  
☐ Hydrogen Sulfide Odor (C1)  
☐ Oxidized Rhizospheres along Living Roots (C3)  
☐ Presence of Reduced Iron (C4)  
☐ Recent Iron Reduction in Tilled Soils (C6)  
☐ Thin Muck Surface (C7)  
☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)  
☐ Sediment Deposits (B2) (Riverine)  
☐ Drift Deposits (B3) (Riverine)  
☐ Drainage Patterns (B10)  
☐ Dry-Season Water Table (C2)  
☐ Crayfish Burrows (C8)  
☐ Saturation Visible on Aerial Imag.(C9)  
☐ Shallow Aquitard (D3)  
☐ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present? Yes X No \_\_\_\_\_ Depth (inches): 2  
Water Table Present? Yes \_\_\_\_\_ No X Depth (inches): --  
Saturation Present? Yes X No \_\_\_\_\_ Depth (inches): 17  
(includes capillary fringe)

**Wetland Hydrology Present?** Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

wet from irrigation water upslope.



# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 6/14/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 13 Sampling Point: 20-W-201206141330  
 Investigators: Donovan Gross Mike Perkins Section, Township, Range S 15 T 3 R 1  
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): Concave Slope(%) 1  
 Subregion (LRR): LRR D Lat: 40.9937280182 Long: -111.943585017 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Arave-Saltair complex, 0 to 1 percent slopes NWI Classification: PEMC

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No        (If No, explain in Remarks)  
 Are Vegetation       , Soil       , Hydrology       , significantly disturbed? Are "Normal Circumstances" present? Yes X No         
 Are Vegetation       , Soil       , Hydrology       , naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No <u>      </u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No <u>      </u> <b>Wetland ID:</b> <u>20-W-26</u>
Hydric Soil Present? Yes <u>X</u> No <u>      </u>	
Wetland Hydrology Present? Yes <u>X</u> No <u>      </u>	

Remarks:  
 Wet point in wet meadow adjacent to emergent marsh.

## VEGETATION— Use scientific names of plants.

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
Eleocharis palustris	25	Y	OBL
Polypogon monspeliensis	15	Y	FACW
Puccinellia nuttalliana	15	Y	FACW
Ranunculus alismifolius	15	Y	FACW
Festuca pratensis	5	N	FACU
Hordeum jubatum	5	N	FAC
Lepidium latifolium	5	N	FAC
	85	=Total Cover	

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across all Strata: 4 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>25</u>	x 1 = <u>25</u>
FACW species <u>45</u>	x 2 = <u>90</u>
FAC species <u>10</u>	x 3 = <u>30</u>
FACU species <u>5</u>	x 4 = <u>20</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>85</u> (A)	<u>165</u> (B)

Prevalence Index = B/A = 1.94

### Hydrophytic Vegetation Indicators:

       Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
       Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
       Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No       

% Bare Ground in Herb Stratum 10 % Cover of Biotic Crust

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation is hydrophytic.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix			Redox Features					Texture	Remarks
	Color (moist)		%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>			
0 to 3	10YR	3.0/ 1	97	10YR 4/6	3	C	PL	SILT LOAM		
3 to 11	GLE Y 1	4.0/ 10Y	60	Gley1 3/N	35	C	PL	SILT LOAM	10YR 4/6 5% C M	
11 to 13	10YR	3.0/ 1	100					LOAM		
13 to 14	10YR	5.0/ 2	100					SAND		
14 to 20	10YR	3.0/ 1	100					SAND		

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |  |
|--|--|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)                    |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)                |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)            |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input checked="" type="checkbox"/> Loamy Gleyed Matrix (F2) |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input type="checkbox"/> Depleted Matrix (F3)                |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)             |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7)          |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)              |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)                   |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |  |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- |   |
|---|
| <input type="checkbox"/> 1 cm Muck (A9) (LRR C)     |
| <input type="checkbox"/> 2 cm Muck (A10) (LRR B)    |
| <input type="checkbox"/> Reduced Vertic (F18)       |
| <input type="checkbox"/> Red Parent Material (TF2)  |
| <input type="checkbox"/> Other (Explain in Remarks) |

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes X No \_\_\_\_\_

## Remarks:

Soil meets criteria for hydric indicator F2.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |   |
|--|---|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)   |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                                       |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Fauna (B13)                                      |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                               |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input checked="" type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                            |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)               |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                                   |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                               |

Secondary Indicators (minimum of two required)

- |  |
|--|
| <input type="checkbox"/> Water Marks (B1) (Riverine)             |
| <input type="checkbox"/> Sediment Deposits (B2) (Riverine)       |
| <input type="checkbox"/> Drift Deposits (B3) (Riverine)          |
| <input type="checkbox"/> Drainage Patterns (B10)                 |
| <input type="checkbox"/> Dry-Season Water Table (C2)             |
| <input type="checkbox"/> Crayfish Burrows (C8)                   |
| <input type="checkbox"/> Saturation Visible on Aerial Imag. (C9) |
| <input type="checkbox"/> Shallow Aquitard (D3)                   |
| <input checked="" type="checkbox"/> FAC-Neutral Test (D5)        |

**Field Observations:**

Surface Water Present?	Yes _____ No <u>X</u>	Depth (inches):	_____
Water Table Present?	Yes _____ No <u>X</u>	Depth (inches):	_____
Saturation Present?	Yes _____ No <u>X</u>	Depth (inches):	_____

(includes capillary fringe)

**Wetland Hydrology Present?** Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

Hydrology appears enhanced by irrigation field ditches.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 6/15/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 13 Sampling Point: 20-W-201206151345  
 Investigators: Mike Perkins Section, Township, Range S 15 T 3 R 1  
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): Concave Slope(%) 1  
 Subregion (LRR): LRR D Lat: 40.9930815072 Long: -111.942660753 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Sunset loam, drained, 0 to 1 percent slopes NWI Classification: PEMA  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No        (If No, explain in Remarks)  
 Are Vegetation       , Soil       , Hydrology       , significantly disturbed? Are "Normal Circumstances" present? Yes X No         
 Are Vegetation       , Soil       , Hydrology       , naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No <u>      </u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No <u>      </u> Wetland ID: <u>20-W-26</u>
Hydric Soil Present? Yes <u>X</u> No <u>      </u>	
Wetland Hydrology Present? Yes <u>X</u> No <u>      </u>	

Remarks:  
 Wetland "in" point.

## VEGETATION— Use scientific names of plants.

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
Eleocharis palustris	50	Y	OBL
Ranunculus alismifolius	25	Y	FACW
Schoenoplectus pungens	25	Y	OBL
Typha latifolia	25	Y	OBL
Hordeum jubatum	5	N	FAC
Polypogon monspeliensis	5	N	FACW
Trifolium fragiferum	5	N	FACU
	140	=Total Cover	

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across all Strata: 4 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>100</u>	x 1 = <u>100</u>
FACW species <u>30</u>	x 2 = <u>60</u>
FAC species <u>5</u>	x 3 = <u>15</u>
FACU species <u>5</u>	x 4 = <u>20</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>140</u> (A)	<u>195</u> (B)

Prevalence Index = B/A = 1.39

### Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
 Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No       

% Bare Ground in Herb Stratum 5 % Cover of Biotic Crust

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation is hydrophytic.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix			Redox Features				Texture	Remarks
	Color (moist)		%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 3	10YR	4.0/ 2	100					SILTY CLAY LOAM	
3 to 12	GLE Y 1	4.0/ 10Y	70	Gley1 2.5/N	30	C	M	LOAMY SAND	
12 to 20	10YR	4.0/ 2	100					SAND	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- ☐ Histosol (A1)  
☐ Histic Epipedon (A2)  
☐ Black Histic (A3)  
☐ Hydrogen Sulfide (A4)  
☐ Stratified Layers (A5) LRR C  
☐ 1 cm Muck (A9) LRR F D  
☐ Depleted Below Dark Surface (A11)  
☐ Thick Dark Surface (A12)  
☐ Sandy Mucky Mineral (S1)  
☒ Sandy Gleyed Matrix (S4)

- ☐ Sandy Redox (S5)  
☐ Stripped Matrix (S6)  
☐ Loamy Mucky Mineral (F1)  
☐ Loamy Gleyed Matrix (F2)  
☐ Depleted Matrix (F3)  
☐ Redox Dark Surface (F6)  
☐ Depleted Dark Surface (F7)  
☐ Redox Depressions (F8)  
☐ Vernal Pools (F9)

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)  
☐ 2 cm Muck (A10) (LRR B)  
☐ Reduced Vertic (F18)  
☐ Red Parent Material (TF2)  
☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes X No \_\_\_\_\_

## Remarks:

Soil meets criteria for hydric indicator S4.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- ☒ Surface Water (A1)  
☒ High Water Table (A2)  
☒ Saturation (A3)  
☐ Water Marks (B1) (Nonriverine)  
☐ Sediment Deposits (B2) (Nonriverine)  
☐ Drift Deposits (B3) (Nonriverine)  
☐ Surface Soil Cracks (B6)  
☐ Inundation Visible on Aerial Imagery (B7)  
☐ Water-Stained Leaves (B9)  
☐ Salt Crust (B11)  
☐ Biotic Crust (B12)  
☐ Aquatic Fauna (B13)  
☐ Hydrogen Sulfide Odor (C1)  
☐ Oxidized Rhizospheres along Living Roots (C3)  
☐ Presence of Reduced Iron (C4)  
☐ Recent Iron Reduction in Tilled Soils (C6)  
☐ Thin Muck Surface (C7)  
☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)  
☐ Sediment Deposits (B2) (Riverine)  
☐ Drift Deposits (B3) (Riverine)  
☐ Drainage Patterns (B10)  
☐ Dry-Season Water Table (C2)  
☐ Crayfish Burrows (C8)  
☐ Saturation Visible on Aerial Imag.(C9)  
☐ Shallow Aquitard (D3)  
☒ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present? Yes X No \_\_\_\_\_ Depth (inches): 0  
Water Table Present? Yes X No \_\_\_\_\_ Depth (inches): 10  
Saturation Present? Yes X No \_\_\_\_\_ Depth (inches): 0  
(includes capillary fringe)

**Wetland Hydrology Present?** Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

Wetland hydrology present.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 6/18/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: \_\_\_\_\_ Sampling Point: 20-W-201206181130  
 Investigators: Trent Toler Section, Township, Range S 15 T 3 R 1  
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): Concave Slope(%) 0  
 Subregion (LRR): LRR D Lat: 40.9964015391 Long: -111.939905513 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Arave-Saltair complex, 0 to 1 percent slopes NWI Classification: PEMC  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes \_\_\_\_\_ No X  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology X, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ Wetland ID: <u>20-W-05</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks:  
 Ponded water area, probably from irrigation water.

## VEGETATION— Use scientific names of plants.

<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
50	Y	OBL
20	Y	FAC
15	N	FACW
5	N	FACU
5	N	FACW
5	N	OBL
100	=Total Cover	

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

Eleocharis palustris	50	Y	OBL
Hordeum jubatum	20	Y	FAC
Puccinellia nuttalliana	15	N	FACW
Festuca pratensis	5	N	FACU
Juncus arcticus	5	N	FACW
Salicornia rubra	5	N	OBL

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 2 (A)  
 Total Number of Dominant Species Across all Strata: 2 (B)  
 Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>55</u>	x 1 = <u>55</u>
FACW species <u>20</u>	x 2 = <u>40</u>
FAC species <u>20</u>	x 3 = <u>60</u>
FACU species <u>5</u>	x 4 = <u>20</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>100</u> (A)	<u>175</u> (B)
Prevalence Index = B/A = <u>1.75</u>	

### Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
 Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No \_\_\_\_\_

% Bare Ground in Herb Stratum 30 % Cover of Biotic Crust

Remarks: (Include photo numbers here or on a separate sheet.)  
 Pickleweed and alkligrass by edge. Bare soil mostly = open water.



**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix			Redox Features				Texture	Remarks
	Color (moist)		%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 3	2.5Y	3.0 / 1	100					LOAM	
3 to 6	10YR	4.0 / 2	80	Gley1 3/N	10	C	PL	SANDY CLAY LOAM	also: 10YR 5/2 10% D M
6 to 17	10YR	4.0 / 1	60	Gley1 4/N	10	C	M	SANDY CLAY LOAM	
6 to 17	10YR	5.0 / 4	30					SANDY CLAY LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |  |
|--|--|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)                |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)            |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)        |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)        |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input checked="" type="checkbox"/> Depleted Matrix (F3) |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)         |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7)      |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)          |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)               |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |  |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)  
☐ 2 cm Muck (A10) (LRR B)  
☐ Reduced Vertic (F18)  
☐ Red Parent Material (TF2)  
☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes X No \_\_\_\_\_

## Remarks:

Soil meets criteria for hydric indicator F3.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input checked="" type="checkbox"/> Surface Water (A1)             | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input checked="" type="checkbox"/> Surface Soil Cracks (B6)       | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)  
☐ Sediment Deposits (B2) (Riverine)  
☐ Drift Deposits (B3) (Riverine)  
☐ Drainage Patterns (B10)  
☐ Dry-Season Water Table (C2)  
☐ Crayfish Burrows (C8)  
☐ Saturation Visible on Aerial Imag.(C9)  
☐ Shallow Aquitard (D3)  
☒ FAC-Neutral Test (D5)

**Field Observations:**Surface Water Present? Yes X No \_\_\_\_\_ Depth (inches): 5Water Table Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Saturation Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_

(includes capillary fringe)

**Wetland Hydrology Present?** Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

Because of surface water I couldn't determine saturation and gw, though those were not at the surface.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 6/13/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 12 Sampling Point: 20-N-201206130903  
 Investigators: Trent Toler Section, Township, Range S 16 T 3 R 1  
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): None Slope(%) 0  
 Subregion (LRR): LRR D Lat: 40.9984880151 Long: -111.950044723 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Airport silty clay loam, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes \_\_\_\_\_ No X  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology X, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> <b>Wetland ID:</b> _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	

Remarks:  
 Area not a wetland where irrigation water backs up against berm and floods periodically; field was just irrigated.

## VEGETATION— Use scientific names of plants.

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
Phragmites australis	50	Y	FACW
Conium maculatum	15	Y	FACW
Hordeum jubatum	15	Y	FAC
Phalaris arundinacea	15	Y	FACW
Bromus tectorum	5	N	UPL
	100	=Total Cover	

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across all Strata: 4 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>80</u>	x 2 = <u>160</u>
FAC species <u>15</u>	x 3 = <u>45</u>
FACU species <u>0</u>	x 4 = <u>0</u>
UPL species <u>5</u>	x 5 = <u>25</u>
Column Totals: <u>100</u> (A)	<u>230</u> (B)

Prevalence Index = B/A = 2.30

### Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
 Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No \_\_\_\_\_

% Bare Ground in Herb Stratum 25 % Cover of Biotic Crust

Remarks: (Include photo numbers here or on a separate sheet.)  
 Mostly FACW veg, but the persistent and weedy kind. Edges were sprayed w/ herbicide.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 4	10YR	4.0 / 2	100				COARSE SANDY LOAM	
4 to 18	10YR	3.0 / 1	100				CLAY LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- ☐ Histosol (A1)  
☐ Histic Epipedon (A2)  
☐ Black Histic (A3)  
☐ Hydrogen Sulfide (A4)  
☐ Stratified Layers (A5) LRR C  
☐ 1 cm Muck (A9) LRR F D  
☐ Depleted Below Dark Surface (A11)  
☐ Thick Dark Surface (A12)  
☐ Sandy Mucky Mineral (S1)  
☐ Sandy Gleyed Matrix (S4)

- ☐ Sandy Redox (S5)  
☐ Stripped Matrix (S6)  
☐ Loamy Mucky Mineral (F1)  
☐ Loamy Gleyed Matrix (F2)  
☐ Depleted Matrix (F3)  
☐ Redox Dark Surface (F6)  
☐ Depleted Dark Surface (F7)  
☐ Redox Depressions (F8)  
☐ Vernal Pools (F9)

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)  
☐ 2 cm Muck (A10) (LRR B)  
☐ Reduced Vertic (F18)  
☐ Red Parent Material (TF2)  
☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No X

## Remarks:

Coarse sand layer probably from berm. Soil fails to indicate hydric conditions.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)  
☐ High Water Table (A2)  
☐ Saturation (A3)  
☐ Water Marks (B1) (Nonriverine)  
☐ Sediment Deposits (B2) (Nonriverine)  
☐ Drift Deposits (B3) (Nonriverine)  
☐ Surface Soil Cracks (B6)  
☐ Inundation Visible on Aerial Imagery (B7)  
☐ Water-Stained Leaves (B9)  
☐ Salt Crust (B11)  
☐ Biotic Crust (B12)  
☐ Aquatic Fauna (B13)  
☐ Hydrogen Sulfide Odor (C1)  
☐ Oxidized Rhizospheres along Living Roots (C3)  
☐ Presence of Reduced Iron (C4)  
☐ Recent Iron Reduction in Tilled Soils (C6)  
☐ Thin Muck Surface (C7)  
☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)  
☐ Sediment Deposits (B2) (Riverine)  
☐ Drift Deposits (B3) (Riverine)  
☐ Drainage Patterns (B10)  
☐ Dry-Season Water Table (C2)  
☐ Crayfish Burrows (C8)  
☐ Saturation Visible on Aerial Imag.(C9)  
☐ Shallow Aquitard (D3)  
☒ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present? Yes X No \_\_\_\_\_ Depth (inches): 4  
Water Table Present? Yes \_\_\_\_\_ No X Depth (inches): --  
Saturation Present? Yes X No \_\_\_\_\_ Depth (inches): 0  
(includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

Currently flooded from irrigation but deeper layers not saturated only sand layer, therefore not A1 or A3.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 6/13/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 12 Sampling Point: 20-N-201206130953  
 Investigators: Trent Toler Section, Township, Range S 15 T 3 R 1  
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): None Slope(%) 0  
 Subregion (LRR): LRR D Lat: 40.9973003287 Long: -111.948841809 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Airport silt loam, 0 to 2 percent slopes NWI Classification: \_\_\_\_\_  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology X, significantly disturbed? Are "Normal Circumstances" present? Yes \_\_\_\_\_ No X  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	Is the Sampled Area within a Wetland? Yes _____ No <u>X</u>
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes <u>X</u> No _____	
Wetland ID: _____	

Remarks:  
 Sampling point not a wetland. Phragmites where hydrology is now cut-off or was never very wet to begin with.

## VEGETATION— Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
<u>Tree Stratum</u>			
<u>Shrub Stratum</u>			
<u>Herb Stratum</u> (Plot size: <u>30 Ft</u> )			
<u>Phragmites australis</u>	<u>100</u>	<u>Y</u>	<u>FACW</u>
	<u>100</u> =Total Cover		
<u>Vine Stratum</u>			

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 1 (A)  
 Total Number of Dominant Species Across all Strata: 1 (B)  
 Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>100</u>	x 2 = <u>200</u>
FAC species <u>0</u>	x 3 = <u>0</u>
FACU species <u>0</u>	x 4 = <u>0</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>100</u> (A)	<u>200</u> (B)
Prevalence Index = B/A= <u>2.00</u>	

### Hydrophytic Vegetation Indicators:

       Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
       Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
       Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

### Hydrophytic

Vegetation Present? Yes X No \_\_\_\_\_

% Bare Ground in Herb Stratum 0 % Cover of Biotic Crust

Remarks: (Include photo numbers here or on a separate sheet.)

Phragmites dominant but not vigorous, very short.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix			Redox Features				Texture	Remarks
	Color (moist)		%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 3	10YR	4.0 / 1	100					LOAMY FINE SAND	
3 to 5	10YR	3.0 / 2	97	2.5YR 3/6	3	C	M	SANDY CLAY LOAM	
5 to 10	10YR	3.0 / 1	100		30	C	M	LOAMY COARSE SAND	
10 to 19	10YR	3.0 / 1	100	10YR 5/2	2	D	M	CLAY LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)           |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)       |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)   |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)   |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input type="checkbox"/> Depleted Matrix (F3)       |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)     |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)          |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |   |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)  
☐ 2 cm Muck (A10) (LRR B)  
☐ Reduced Vertic (F18)  
☐ Red Parent Material (TF2)  
☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No X**Remarks:**

Layers of sand, possibly from older deposition events. A little redox but not enough. Soil fails to indicate hydric conditions.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                           | <input checked="" type="checkbox"/> Aquatic Fauna (B13)                |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)  
☐ Sediment Deposits (B2) (Riverine)  
☐ Drift Deposits (B3) (Riverine)  
☐ Drainage Patterns (B10)  
☐ Dry-Season Water Table (C2)  
☐ Crayfish Burrows (C8)  
☐ Saturation Visible on Aerial Imag.(C9)  
☐ Shallow Aquitard (D3)  
☒ FAC-Neutral Test (D5)

**Field Observations:**Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Water Table Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Saturation Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_

(includes capillary fringe)

**Wetland Hydrology Present?** Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

**Remarks:**

Snail shells, but soil now very dry. Hydrology may no longer support this area.



# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 6/13/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 12 Sampling Point: 20-N-201206131126  
 Investigators: Trent Toler Section, Township, Range S 16 T 3 R 1  
 Landform (hillslope, terrace, etc.): Top of Slope Local Relief (concave, convex, none): None Slope(%) 15  
 Subregion (LRR): LRR D Lat: 40.9978913232 Long: -111.949977121 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Airport silty clay loam, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil X, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes \_\_\_\_\_ No X  
 Are Vegetation \_\_\_\_\_, Soil X, Hydrology \_\_\_\_\_, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> Wetland ID: _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	

Remarks:  
 Compacted fill dike w/ gravel road, very dry w/ rocks and gravels.

## VEGETATION— Use scientific names of plants.

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
Ambrosia artemisiifolia	35	Y	FACU
Thinopyrum ponticum	30	Y	UPL
Bromus tectorum	15	N	UPL
Lepidium latifolium	15	N	FAC
Melilotus officinalis	5	N	FACU
Phragmites australis	5	N	FACW
	105	=Total Cover	

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 0 (A)  
 Total Number of Dominant Species Across all Strata: 2 (B)  
 Percent of Dominant Species That are OBL, FACW, or FAC: 0.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>5</u>	x 2 = <u>10</u>
FAC species <u>15</u>	x 3 = <u>45</u>
FACU species <u>40</u>	x 4 = <u>160</u>
UPL species <u>45</u>	x 5 = <u>225</u>
Column Totals: <u>105</u> (A)	<u>440</u> (B)
Prevalence Index = B/A= <u>4.19</u>	

### Hydrophytic Vegetation Indicators:

☐ Rapid Test for Hydrophytic Vegetation  
☐ Dominance Test > 50%  
☐ Prevalence Index ≤ 3.0  
☐ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
☐ Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes \_\_\_\_\_ No X

% Bare Ground in Herb Stratum 10 % Cover of Biotic Crust

Remarks: (Include photo numbers here or on a separate sheet.)  
 upland weedy vegetation.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)           |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)       |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)   |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)   |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input type="checkbox"/> Depleted Matrix (F3)       |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)     |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)          |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |   |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)
- ☐ 2 cm Muck (A10) (LRR B)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No X**Remarks:**

No soil pit dug, all compacted fill with rocks.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)
- ☐ Sediment Deposits (B2) (Riverine)
- ☐ Drift Deposits (B3) (Riverine)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

**Field Observations:**Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Water Table Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Saturation Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_

(includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

**Remarks:**

very dry, about 5 ft above water.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 6/14/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 13 Sampling Point: 20-N-201206141120  
 Investigators: Trent Toler Section, Township, Range S 15 T 3 R 1  
 Landform (hillslope, terrace, etc.): Terrace Local Relief (concave, convex, none): None Slope(%) 0  
 Subregion (LRR): LRR D Lat: 40.9964729861 Long: -111.947467084 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Airport silt loam, 0 to 2 percent slopes NWI Classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u>  <b>Wetland ID:</b> _____
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes _____ No <u>X</u>	

Remarks:  
 Upland weedy strip but soils appear to be hydric

## VEGETATION— Use scientific names of plants.

**Absolute % Cover** **Dominant Species** **Indicator Status**

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

Lepidium latifolium	40	Y	FAC
Bromus arvensis	30	Y	FACU
Atriplex micrantha	20	N	UPL
Thinopyrum ponticum	10	N	UPL
Hordeum jubatum	5	N	FAC
	105	=Total Cover	

### Vine Stratum

## Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across all Strata: 2 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 50.0% (A/B)

## Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>0</u>	x 2 = <u>0</u>
FAC species <u>45</u>	x 3 = <u>135</u>
FACU species <u>30</u>	x 4 = <u>120</u>
UPL species <u>30</u>	x 5 = <u>150</u>
Column Totals: <u>105</u> (A)	<u>405</u> (B)

Prevalence Index = B/A = 3.86

## Hydrophytic Vegetation Indicators:

☐ Rapid Test for Hydrophytic Vegetation  
☐ Dominance Test > 50%  
☐ Prevalence Index ≤ 3.0  
☐ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
☐ Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes \_\_\_\_\_ No X

% Bare Ground in Herb Stratum 5 % Cover of Biotic Crust

Remarks: (Include photo numbers here or on a separate sheet.)  
 weeds and wheatgrass

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix			Redox Features				Texture	Remarks
	Color (moist)		%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 3	10YR	3.0/ 2	100		10	C	M	CLAY LOAM	
3 to 13	10YR	3.0/ 2	85	10YR 5/4	15	C	M	CLAY LOAM	
13 to 18	10YR	4.0/ 2	95	10YR 4/6	3	C	M	SILTY CLAY	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)                   |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)               |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)           |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)           |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input type="checkbox"/> Depleted Matrix (F3)               |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input checked="" type="checkbox"/> Redox Dark Surface (F6) |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7)         |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)             |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)                  |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |   |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)  
☐ 2 cm Muck (A10) (LRR B)  
☐ Reduced Vertic (F18)  
☐ Red Parent Material (TF2)  
☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_  
Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes X No \_\_\_\_\_

## Remarks:

Soil meets criteria for hydric indicator F6.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)  
☐ Sediment Deposits (B2) (Riverine)  
☐ Drift Deposits (B3) (Riverine)  
☐ Drainage Patterns (B10)  
☐ Dry-Season Water Table (C2)  
☐ Crayfish Burrows (C8)  
☐ Saturation Visible on Aerial Imag.(C9)  
☐ Shallow Aquitard (D3)  
☐ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present?	Yes _____ No <u>X</u>	Depth (inches): _____
Water Table Present?	Yes _____ No <u>X</u>	Depth (inches): _____
Saturation Present?	Yes _____ No <u>X</u>	Depth (inches): _____

(includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

very dry and hard w/ no indicators.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 6/14/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 13 Sampling Point: 20-N-201206141212  
 Investigators: Trent Toler Section, Township, Range S 15 T 3 R 1  
 Landform (hillslope, terrace, etc.): Terrace Local Relief (concave, convex, none): None Slope(%) 0  
 Subregion (LRR): LRR D Lat: 40.9958931421 Long: -111.946165151 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Arave-Saltair complex, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> <b>Wetland ID:</b> _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	

Remarks:  
 Patch of Phrag dominated area, soils shows signs of being hydric but no hydrology anymore.

## VEGETATION— Use scientific names of plants.

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
Phragmites australis	100	Y	FACW
Lepidium latifolium	3	N	FAC
	103	=Total Cover	

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across all Strata: 1 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

### Prevalence Index Worksheet:

	Total % Cover of:	Multiply by:
OBL species	<u>0</u>	x 1 = <u>0</u>
FACW species	<u>100</u>	x 2 = <u>200</u>
FAC species	<u>3</u>	x 3 = <u>9</u>
FACU species	<u>0</u>	x 4 = <u>0</u>
UPL species	<u>0</u>	x 5 = <u>0</u>
Column Totals:	<u>103</u> (A)	<u>209</u> (B)

Prevalence Index = B/A= 2.03

### Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
 Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No \_\_\_\_\_

% Bare Ground in Herb Stratum 0 % Cover of Biotic Crust \_\_\_\_\_

Remarks: (Include photo numbers here or on a separate sheet.)



**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix			Redox Features				Texture	Remarks
	Color (moist)		%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 3	10YR	3.0/ 2	100		30	C	M	FINE SANDY LOAM	
3 to 16	10YR	3.0/ 2	85	10YR 2/1	5	C	M	SANDY CLAY LOAM	also: 10YR 6/2 10%
16 to 19	5Y	4.0/ 2	93	10YR 4/6	5	C	M	SANDY CLAY	
16 to 19	GLEYS	1 2.5/ N	2					SANDY CLAY	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)           |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)       |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)   |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)   |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input type="checkbox"/> Depleted Matrix (F3)       |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)     |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)          |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |   |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- |   |
|---|
| <input type="checkbox"/> 1 cm Muck (A9) (LRR C)     |
| <input type="checkbox"/> 2 cm Muck (A10) (LRR B)    |
| <input type="checkbox"/> Reduced Vertic (F18)       |
| <input type="checkbox"/> Red Parent Material (TF2)  |
| <input type="checkbox"/> Other (Explain in Remarks) |

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No X

## Remarks:

Just barely fails F6 and F7, manganese is faint and not enough depletions present.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- |   |
|---|
| <input type="checkbox"/> Water Marks (B1) (Riverine)            |
| <input type="checkbox"/> Sediment Deposits (B2) (Riverine)      |
| <input type="checkbox"/> Drift Deposits (B3) (Riverine)         |
| <input type="checkbox"/> Drainage Patterns (B10)                |
| <input type="checkbox"/> Dry-Season Water Table (C2)            |
| <input type="checkbox"/> Crayfish Burrows (C8)                  |
| <input type="checkbox"/> Saturation Visible on Aerial Imag.(C9) |
| <input type="checkbox"/> Shallow Aquitard (D3)                  |
| <input checked="" type="checkbox"/> FAC-Neutral Test (D5)       |

**Field Observations:**Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Water Table Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Saturation Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_

(includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

no saturation, only damp. Sampled during dry time of year.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 6/14/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 13 Sampling Point: 20-N-201206141215  
 Investigators: Donovan Gross Mike Perkins Section, Township, Range S 15 T 3 R 1  
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): Concave Slope(%) 1  
 Subregion (LRR): LRR D Lat: 40.9948469727 Long: -111.944415104 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Arave-Saltair complex, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> Wetland ID: _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	

Remarks:  
 Potential area not a wetland - no hydrology or soils.

## VEGETATION— Use scientific names of plants.

**Absolute % Cover** **Dominant Species** **Indicator Status**

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

Phragmites australis	95	Y	FACW
Atriplex micrantha	5	N	UPL
Conium maculatum	5	N	FACW
	105	=Total Cover	

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across all Strata: 1 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>100</u>	x 2 = <u>200</u>
FAC species <u>0</u>	x 3 = <u>0</u>
FACU species <u>0</u>	x 4 = <u>0</u>
UPL species <u>5</u>	x 5 = <u>25</u>
Column Totals: <u>105</u> (A)	<u>225</u> (B)

Prevalence Index = B/A = 2.14

### Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
 Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No \_\_\_\_\_

% Bare Ground in Herb Stratum 5 % Cover of Biotic Crust

Remarks: (Include photo numbers here or on a separate sheet.)

Hydrophytic vegetation present.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 4	10YR 4.0/ 2	100					LOAMY SAND	
4 to 7	7.5YR 3.0/ 3	100					SAND	
7 to 16	2.5Y 4.0/ 2	100					LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- ☐ Histosol (A1)  
☐ Histic Epipedon (A2)  
☐ Black Histic (A3)  
☐ Hydrogen Sulfide (A4)  
☐ Stratified Layers (A5) LRR C  
☐ 1 cm Muck (A9) LRR F D  
☐ Depleted Below Dark Surface (A11)  
☐ Thick Dark Surface (A12)  
☐ Sandy Mucky Mineral (S1)  
☐ Sandy Gleyed Matrix (S4)

- ☐ Sandy Redox (S5)  
☐ Stripped Matrix (S6)  
☐ Loamy Mucky Mineral (F1)  
☐ Loamy Gleyed Matrix (F2)  
☐ Depleted Matrix (F3)  
☐ Redox Dark Surface (F6)  
☐ Depleted Dark Surface (F7)  
☐ Redox Depressions (F8)  
☐ Vernal Pools (F9)

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)  
☐ 2 cm Muck (A10) (LRR B)  
☐ Reduced Vertic (F18)  
☐ Red Parent Material (TF2)  
☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No X

## Remarks:

Soil fails to indicate hydric conditions.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)  
☐ High Water Table (A2)  
☐ Saturation (A3)  
☐ Water Marks (B1) (Nonriverine)  
☐ Sediment Deposits (B2) (Nonriverine)  
☐ Drift Deposits (B3) (Nonriverine)  
☐ Surface Soil Cracks (B6)  
☐ Inundation Visible on Aerial Imagery (B7)  
☐ Water-Stained Leaves (B9)  
☐ Salt Crust (B11)  
☐ Biotic Crust (B12)  
☐ Aquatic Fauna (B13)  
☐ Hydrogen Sulfide Odor (C1)  
☐ Oxidized Rhizospheres along Living Roots (C3)  
☐ Presence of Reduced Iron (C4)  
☐ Recent Iron Reduction in Tilled Soils (C6)  
☐ Thin Muck Surface (C7)  
☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)  
☐ Sediment Deposits (B2) (Riverine)  
☐ Drift Deposits (B3) (Riverine)  
☐ Drainage Patterns (B10)  
☐ Dry-Season Water Table (C2)  
☐ Crayfish Burrows (C8)  
☐ Saturation Visible on Aerial Imag.(C9)  
☐ Shallow Aquitard (D3)  
☒ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_  
Water Table Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_  
Saturation Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_  
(includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

No hydrology indicators present.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 6/14/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 13 Sampling Point: 20-N-201206141342  
 Investigators: Trent Toler Section, Township, Range S 15 T 3 R 1  
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): Concave Slope(%) 0  
 Subregion (LRR): LRR D Lat: 40.9966446813 Long: -111.947518797 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Airport silt loam, 0 to 2 percent slopes NWI Classification: \_\_\_\_\_  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation X, Soil \_\_\_\_\_, Hydrology X, significantly disturbed? Are "Normal Circumstances" present? Yes \_\_\_\_\_ No X  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> Wetland ID: _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks:  
 Edge of hayfield where irrigation water backs up behind berm.

## VEGETATION— Use scientific names of plants.

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
Phragmites australis	85	Y	FACW
Conium maculatum	5	N	FACW
Phalaris arundinacea	5	N	FACW
Rumex crispus	3	N	FAC
	98	=Total Cover	

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 1 (A)  
 Total Number of Dominant Species Across all Strata: 1 (B)  
 Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>95</u>	x 2 = <u>190</u>
FAC species <u>3</u>	x 3 = <u>9</u>
FACU species <u>0</u>	x 4 = <u>0</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>98</u> (A)	<u>199</u> (B)
Prevalence Index = B/A= <u>2.03</u>	

### Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
 Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No \_\_\_\_\_

% Bare Ground in Herb Stratum 30 % Cover of Biotic Crust

Remarks: (Include photo numbers here or on a separate sheet.)  
 Some FACW and FAC veg, but Phrag is dead from spraying or other.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix			Redox Features				Texture	Remarks
	Color (moist)		%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 5	10YR	3.0 / 1	100					LOAM	
5 to 14	10YR	3.0 / 1	100					SANDY CLAY LOAM	
14 to 18	10YR	3.0 / 2	95	10YR 5/2	5	D	M	SANDY CLAY LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)           |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)       |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)   |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)   |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input type="checkbox"/> Depleted Matrix (F3)       |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)     |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)          |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |   |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)  
☐ 2 cm Muck (A10) (LRR B)  
☐ Reduced Vertic (F18)  
☐ Red Parent Material (TF2)  
☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No X

## Remarks:

Dark soils but only a few depletions fairly deep. Soil fails to indicate hydric conditions.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input checked="" type="checkbox"/> Surface Water (A1)             | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                           | <input checked="" type="checkbox"/> Aquatic Fauna (B13)                |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)  
☐ Sediment Deposits (B2) (Riverine)  
☐ Drift Deposits (B3) (Riverine)  
☐ Drainage Patterns (B10)  
☐ Dry-Season Water Table (C2)  
☐ Crayfish Burrows (C8)  
☐ Saturation Visible on Aerial Imag.(C9)  
☐ Shallow Aquitard (D3)  
☒ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present?	Yes _____ No <u>X</u>	Depth (inches):	<u>5</u>
Water Table Present?	Yes _____ No <u>X</u>	Depth (inches):	<u>--</u>
Saturation Present?	Yes _____ No <u>X</u>	Depth (inches):	<u>--</u>

(includes capillary fringe)

**Wetland Hydrology Present?** Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

surface water only, from irrigation runoff.



# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 6/13/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 12 Sampling Point: 20-W-201206131049  
 Investigators: Trent Toler Section, Township, Range S 16 T 3 R 1  
 Landform (hillslope, terrace, etc.): Basin Local Relief (concave, convex, none): Concave Slope(%) 0  
 Subregion (LRR): LRR D Lat: 40.9979031335 Long: -111.949932195 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Airport silty clay loam, 0 to 1 percent slopes NWI Classification: PEMA  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No        (If No, explain in Remarks)  
 Are Vegetation       , Soil       , Hydrology       , significantly disturbed? Are "Normal Circumstances" present? Yes X No         
 Are Vegetation       , Soil       , Hydrology       , naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No <u>      </u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No <u>      </u> Wetland ID: <u>20-W-02</u>
Hydric Soil Present? Yes <u>X</u> No <u>      </u>	
Wetland Hydrology Present? Yes <u>X</u> No <u>      </u>	

Remarks:  
 Marshy depression, channel-like but doesn't flow or go anywhere.

## VEGETATION— Use scientific names of plants.

**Absolute % Cover** **Dominant Species** **Indicator Status**

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

Phragmites australis	90	Y	FACW
Conium maculatum	5	N	FACW
Atriplex micrantha	3	N	UPL
Lactuca serriola	2	N	FACU
	100	=Total Cover	

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across all Strata: 1 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>95</u>	x 2 = <u>190</u>
FAC species <u>0</u>	x 3 = <u>0</u>
FACU species <u>2</u>	x 4 = <u>8</u>
UPL species <u>3</u>	x 5 = <u>15</u>
Column Totals: <u>100</u> (A)	<u>213</u> (B)

Prevalence Index = B/A = 2.13

### Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
 Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No       

% Bare Ground in Herb Stratum 30 % Cover of Biotic Crust

Remarks: (Include photo numbers here or on a separate sheet.)  
 phrag dominated, others invading from edge.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)		Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 7	10YR	3.0/ 1		100			LOAM	
7 to 12	5Y	4.0/ 2	7.5 YR 4/6	25	C	M	SILT LOAM	
12 to 18	5Y	4.0/ 2	10YR 5/6	80	RM	M	SANDY CLAY LOAM	
18 to 18	5YR	3.0/ 4					SANDY CLAY LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |  |
|--|--|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)                |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)            |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)        |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)        |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input checked="" type="checkbox"/> Depleted Matrix (F3) |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)         |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7)      |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)          |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)               |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |  |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- |   |
|---|
| <input type="checkbox"/> 1 cm Muck (A9) (LRR C)     |
| <input type="checkbox"/> 2 cm Muck (A10) (LRR B)    |
| <input type="checkbox"/> Reduced Vertic (F18)       |
| <input type="checkbox"/> Red Parent Material (TF2)  |
| <input type="checkbox"/> Other (Explain in Remarks) |

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes X No \_\_\_\_\_

## Remarks:

Redox starting at 7in, but is very strong at 12. Soil meets criteria for hydric indicator F3.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input checked="" type="checkbox"/> Surface Water (A1)             | <input type="checkbox"/> Salt Crust (B11)                              |
| <input checked="" type="checkbox"/> High Water Table (A2)          | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input checked="" type="checkbox"/> Saturation (A3)                | <input checked="" type="checkbox"/> Aquatic Fauna (B13)                |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- |   |
|---|
| <input type="checkbox"/> Water Marks (B1) (Riverine)            |
| <input type="checkbox"/> Sediment Deposits (B2) (Riverine)      |
| <input type="checkbox"/> Drift Deposits (B3) (Riverine)         |
| <input type="checkbox"/> Drainage Patterns (B10)                |
| <input type="checkbox"/> Dry-Season Water Table (C2)            |
| <input type="checkbox"/> Crayfish Burrows (C8)                  |
| <input type="checkbox"/> Saturation Visible on Aerial Imag.(C9) |
| <input type="checkbox"/> Shallow Aquitard (D3)                  |
| <input checked="" type="checkbox"/> FAC-Neutral Test (D5)       |

**Field Observations:**Surface Water Present? Yes X No \_\_\_\_\_ Depth (inches): 2Water Table Present? Yes X No \_\_\_\_\_ Depth (inches): 0Saturation Present? Yes X No \_\_\_\_\_ Depth (inches): 0

(includes capillary fringe)

**Wetland Hydrology Present?** Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

Inundated but might be from irrigation runoff getting trapped against dike.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 6/13/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 12 Sampling Point: 20-W-201206131412  
 Investigators: Trent Toler Section, Township, Range S 15 T 3 R 1  
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): None Slope(%) 0  
 Subregion (LRR): LRR D Lat: 40.9972040219 Long: -111.948902901 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Airport silt loam, 0 to 2 percent slopes NWI Classification: PEMF  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No        (If No, explain in Remarks)  
 Are Vegetation X, Soil X, Hydrology       , significantly disturbed? Are "Normal Circumstances" present? Yes        No X  
 Are Vegetation       , Soil       , Hydrology       , naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No <u>      </u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No <u>      </u> <b>Wetland ID:</b> <u>20-W-02</u>
Hydric Soil Present? Yes <u>X</u> No <u>      </u>	
Wetland Hydrology Present? Yes <u>X</u> No <u>      </u>	

Remarks:  
 Phragmites dominated wetland that might not have enough hydrology any more; phrag may have been sprayed with herbicide.

## VEGETATION— Use scientific names of plants.

<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
<u>95</u>	<u>Y</u>	<u>FACW</u>
<u>3</u>	<u>N</u>	<u>UPL</u>
<u>2</u>	<u>N</u>	<u>FACU</u>
<u>100</u>	<u>=Total Cover</u>	

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

<u>Phragmites australis</u>	<u>95</u>	<u>Y</u>	<u>FACW</u>
<u>Atriplex micrantha</u>	<u>3</u>	<u>N</u>	<u>UPL</u>
<u>Lactuca serriola</u>	<u>2</u>	<u>N</u>	<u>FACU</u>

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 1 (A)  
 Total Number of Dominant Species Across all Strata: 1 (B)  
 Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>95</u>	x 2 = <u>190</u>
FAC species <u>0</u>	x 3 = <u>0</u>
FACU species <u>2</u>	x 4 = <u>8</u>
UPL species <u>3</u>	x 5 = <u>15</u>
Column Totals: <u>100</u> (A)	<u>213</u> (B)
Prevalence Index = B/A= <u>2.13</u>	

### Hydrophytic Vegetation Indicators:

       Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
       Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
       Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No       

% Bare Ground in Herb Stratum 10 % Cover of Biotic Crust       

Remarks: (Include photo numbers here or on a separate sheet.)  
 Phrag either dead/dying from spraying or no hydrology. Lots of dead material.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix			Redox Features				Texture	Remarks
	Color (moist)		%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 4	10YR	3.0 / 1	100					CLAY LOAM	
4 to 9	10YR	6.0 / 2	90	7.5YR 4/4	2	C	M	CLAY LOAM	also: 10YR 3/1 10%
9 to 17	10YR	4.0 / 4	93	10YR 6/2	7	D	M	SILTY CLAY LOAM	
17 to 19	10YR	3.0 / 1	90	2.5 YR 4/4	10	C	M	COARSE SANDY LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |  |
|--|--|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)                |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)            |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)        |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)        |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input checked="" type="checkbox"/> Depleted Matrix (F3) |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)         |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7)      |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)          |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)               |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |  |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)  
☐ 2 cm Muck (A10) (LRR B)  
☐ Reduced Vertic (F18)  
☐ Red Parent Material (TF2)  
☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes X No \_\_\_\_\_

## Remarks:

Soils meet criteria for hydric indicator F3.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                           | <input checked="" type="checkbox"/> Aquatic Fauna (B13)                |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)  
☐ Sediment Deposits (B2) (Riverine)  
☐ Drift Deposits (B3) (Riverine)  
☐ Drainage Patterns (B10)  
☐ Dry-Season Water Table (C2)  
☐ Crayfish Burrows (C8)  
☐ Saturation Visible on Aerial Imag.(C9)  
☐ Shallow Aquitard (D3)  
☒ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present?	Yes _____ No <u>X</u>	Depth (inches):	____
Water Table Present?	Yes _____ No <u>X</u>	Depth (inches):	____
Saturation Present?	Yes _____ No <u>X</u>	Depth (inches):	____

(includes capillary fringe)

**Wetland Hydrology Present?** Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

Although dry, sampling point meets criteria for wetland hydrology.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 6/14/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 13 Sampling Point: 20-W-201206141030  
 Investigators: Trent Toler Section, Township, Range S 15 T 3 R 1  
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): Concave Slope(%) 0  
 Subregion (LRR): LRR D Lat: 40.9965017549 Long: -111.947444617 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Airport silt loam, 0 to 2 percent slopes NWI Classification: PEMC  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No        (If No, explain in Remarks)  
 Are Vegetation X, Soil       , Hydrology       , significantly disturbed? Are "Normal Circumstances" present? Yes        No X  
 Are Vegetation       , Soil       , Hydrology X, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No <u>      </u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No <u>      </u> Wetland ID: <u>20-CW-03</u>
Hydric Soil Present? Yes <u>X</u> No <u>      </u>	
Wetland Hydrology Present? Yes <u>X</u> No <u>      </u>	

Remarks:  
 Old ditch or swale feature, no longer connected, holds water, unknown source.

## VEGETATION— Use scientific names of plants.

**Absolute % Cover**    **Dominant Species**    **Indicator Status**

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

Phragmites australis	95	Y	FACW
Ranunculus sceleratus	5	N	OBL
Hordeum jubatum	2	N	FAC
	102	=Total Cover	

### Vine Stratum

## Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 1 (A)  
 Total Number of Dominant Species Across all Strata: 1 (B)  
 Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

## Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>5</u>	x 1 = <u>5</u>
FACW species <u>95</u>	x 2 = <u>190</u>
FAC species <u>2</u>	x 3 = <u>6</u>
FACU species <u>0</u>	x 4 = <u>0</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>102</u> (A)	<u>201</u> (B)
Prevalence Index = B/A= <u>1.97</u>	

## Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
 Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No       

% Bare Ground in Herb Stratum 10 % Cover of Biotic Crust

Remarks: (Include photo numbers here or on a separate sheet.)

Phrag dominated but may have been sprayed, nearly all dead.



**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)		Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 4	10YR	3.0/ 1		100			CLAY LOAM	
4 to 7	10YR	4.0/ 1		90			SANDY CLAY LOAM	
4 to 7	10YR	7.0/ 1	10YR 3/6	1	C	M	SANDY CLAY LOAM	
7 to 14	7.5YR	6/ 3	7.5YR 5/6	5	C	M	SANDY CLAY LOAM	
14 to 20	10YR	5/ 2		100			SANDY CLAY LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)           |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)       |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)   |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)   |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input type="checkbox"/> Depleted Matrix (F3)       |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)     |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)          |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |   |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)  
☐ 2 cm Muck (A10) (LRR B)  
☐ Reduced Vertic (F18)  
☐ Red Parent Material (TF2)  
☒ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes X No \_\_\_\_\_**Remarks:**

Lots of redox but doesn't fit indicators as well. Nearly fits Depleted Matrix (F3) but off by 1 chroma. Topography, vegetation, and hydrology indicated a wetland feature.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input checked="" type="checkbox"/> Saturation (A3)                | <input checked="" type="checkbox"/> Aquatic Fauna (B13)                |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input checked="" type="checkbox"/> Surface Soil Cracks (B6)       | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)  
☐ Sediment Deposits (B2) (Riverine)  
☐ Drift Deposits (B3) (Riverine)  
☒ Drainage Patterns (B10)  
☐ Dry-Season Water Table (C2)  
☐ Crayfish Burrows (C8)  
☐ Saturation Visible on Aerial Imag. (C9)  
☐ Shallow Aquitard (D3)  
☒ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present?	Yes	<u>X</u>	No	_____	Depth (inches):	<u>0</u>
Water Table Present?	Yes	<u>X</u>	No	_____	Depth (inches):	<u>14</u>
Saturation Present?	Yes	<u>X</u>	No	_____	Depth (inches):	<u>11</u>

(includes capillary fringe)

**Wetland Hydrology Present?** Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

**Remarks:**

Some surface water but 7-14 layer not wet.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 6/14/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 13 Sampling Point: 20-W-201206141430  
 Investigators: Trent Toler Section, Township, Range S 15 T 3 R 1  
 Landform (hillslope, terrace, etc.): Basin Local Relief (concave, convex, none): None Slope(%) 1  
 Subregion (LRR): LRR D Lat: 40.9957119657 Long: -111.945987171 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Arave-Saltair complex, 0 to 1 percent slopes NWI Classification: PEMC

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No        (If No, explain in Remarks)  
 Are Vegetation       , Soil       , Hydrology       , significantly disturbed? Are "Normal Circumstances" present? Yes X No         
 Are Vegetation       , Soil       , Hydrology       , naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No <u>      </u> Hydric Soil Present? Yes <u>X</u> No <u>      </u> Wetland Hydrology Present? Yes <u>X</u> No <u>      </u>	Is the Sampled Area within a Wetland? Yes <u>X</u> No <u>      </u> Wetland ID: <u>20-IW-25</u>
---	--

Remarks:  
 Basin that has either been diked or excavated at open water area.

## VEGETATION— Use scientific names of plants.

Tree Stratum

Shrub Stratum

Herb Stratum (Plot size: 30 Ft )

	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
Salicornia rubra	70	Y	OBL
Distichlis spicata	15	N	FAC
Puccinellia nuttalliana	3	N	FACW
	88	=Total Cover	

Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 1 (A)  
 Total Number of Dominant Species Across all Strata: 1 (B)  
 Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	<u>70</u>	x 1 =	<u>70</u>
FACW species	<u>3</u>	x 2 =	<u>6</u>
FAC species	<u>15</u>	x 3 =	<u>45</u>
FACU species	<u>0</u>	x 4 =	<u>0</u>
UPL species	<u>0</u>	x 5 =	<u>0</u>
Column Totals:	<u>88</u> (A)		<u>121</u> (B)
Prevalence Index = B/A=		<u>1.38</u>	

### Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
 Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

### Hydrophytic Vegetation Present?

Yes X No       

% Bare Ground in Herb Stratum 40 % Cover of Biotic Crust

Remarks: (Include photo numbers here or on a separate sheet.)  
 pickleweed dominated wetland

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)		%	Color (moist)	%	Type <sup>1</sup>		
0 to 4	10YR	4.0 / 2	100		5	D	M	CLAY LOAM
4 to 6	10YR	5.0 / 1	95	10YR 4/6	3	C	M	LOAMY SAND
6 to 12	5Y	3.0 / 2	90	10YR 6/6	10	C	M	SILTY CLAY LOAM
12 to 18	2.5Y	3.0 / 2	100		10	C	M	SANDY CLAY LOAM

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)                   |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)               |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)           |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)           |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input type="checkbox"/> Depleted Matrix (F3)               |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input checked="" type="checkbox"/> Redox Dark Surface (F6) |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7)         |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)             |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)                  |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |   |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)  
☐ 2 cm Muck (A10) (LRR B)  
☐ Reduced Vertic (F18)  
☐ Red Parent Material (TF2)  
☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes X No \_\_\_\_\_

## Remarks:

Hydric indicator F6 fits soil conditions, but S5 almost fits in thin sandy layer.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input checked="" type="checkbox"/> Salt Crust (B11)                   |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)  
☐ Sediment Deposits (B2) (Riverine)  
☐ Drift Deposits (B3) (Riverine)  
☐ Drainage Patterns (B10)  
☐ Dry-Season Water Table (C2)  
☐ Crayfish Burrows (C8)  
☐ Saturation Visible on Aerial Imag.(C9)  
☐ Shallow Aquitard (D3)  
☒ FAC-Neutral Test (D5)

**Field Observations:**Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Water Table Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Saturation Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_

(includes capillary fringe)

**Wetland Hydrology Present?** Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

Water table has dropped but area has seen much inundation. Sampled during dry time of year.

# WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: WDC MPAC-09262016-3-IN City/County: Davis County Sampling Date: 9/26/2016  
 Applicant/Owner: UDOT State: Utah Sampling Point: MPAC-09262016-3-IN  
 Investigator(s): MP/AC Section, Township, Range: 9 3N 1W  
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): none Slope (%): 0%  
 Subregion (LRR): D Lat: 41.00683107 Long: -111.960715 Datum: D WGS 1983  
 Soil Map Unit Name: Pintailake-Eimarsh-Playas complex, 0 to 1 percent slopes NWI classification: PEM1F  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)  
 Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐  
 Are Vegetation ☐, Soil ☐, or Hydrology ☒ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
Wetland Hydrology Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		
Remarks:  Alkaline meadow.			

## VEGETATION – Use scientific names of plants.

<b>Tree Stratum</b> (Plot size: _____) 1. _____ 2. _____ 3. _____ 4. _____ _____ = Total Cover <b>Sapling/Shrub Stratum</b> (Plot size: _____) 1. _____ 2. _____ 3. _____ 4. _____ 5. _____ _____ = Total Cover <b>Herb Stratum</b> (Plot size: <u>5 ft. radius</u> ) 1. <u>Distichlis spicata</u> 85% Yes FAC 2. <u>Suaeda occidentalis</u> 20% FACW 3. <u>Puccinellia nuttalliana</u> 15% FACW 4. _____ 5. _____ 6. _____ 7. _____ 8. _____ _____ = Total Cover <b>Woody Vine Stratum</b> (Plot size: _____) 1. _____ 2. _____ _____ = Total Cover % Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B) <b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____ <b>Hydrophytic Vegetation Indicators:</b> <input checked="" type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. <b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Remarks:	

# SOIL

Sampling Point: MPAC-099

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-8	2.5Y 3/2	100%					ClLoam	
8-13	2.5Y 3/2	50%	2.5Y 6/2	5%	D	M	ClLoam	
	10YR 5/2	45%						
13-15	10YR 6/2	80%	Gley 1 2.5/N	20%	C	M	ClLoam	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

- |  |  |
|--|--|
| <input type="checkbox"/> Histosol (A1)                           | <input type="checkbox"/> Sandy Redox (S5)                      |
| <input type="checkbox"/> Histic Epipedon (A2)                    | <input type="checkbox"/> Stripped Matrix (S6)                  |
| <input type="checkbox"/> Black Histic (A3)                       | <input type="checkbox"/> Loamy Mucky Mineral (F1)              |
| <input type="checkbox"/> Hydrogen Sulfide (A4)                   | <input type="checkbox"/> Loamy Gleyed Matrix (F2)              |
| <input type="checkbox"/> Stratified Layers (A5) ( <b>LRR C</b> ) | <input type="checkbox"/> Depleted Matrix (F3)                  |
| <input type="checkbox"/> 1 cm Muck (A9) ( <b>LRR D</b> )         | <input type="checkbox"/> Redox Dark Surface (F6)               |
| <input type="checkbox"/> Depleted Below Dark Surface (A11)       | <input checked="" type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12)                | <input type="checkbox"/> Redox Depressions (F8)                |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)                | <input type="checkbox"/> Vernal Pools (F9)                     |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)                |  |

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- ☐ 1 cm Muck (A9) (**LRR C**)
- ☐ 2 cm Muck (A10) (**LRR B**)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes ☒ No ☐

Remarks:

# HYDROLOGY

**Wetland Hydrology Indicators:**

**Primary Indicators (minimum of one required; check all that apply)**

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                            | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                         | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                               | <input type="checkbox"/> Aquatic Invertebrates (B13)                   |
| <input type="checkbox"/> Water Marks (B1) ( <b>Nonriverine</b> )       | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) ( <b>Nonriverine</b> ) | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) ( <b>Nonriverine</b> )    | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                      | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)     | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                     | <input type="checkbox"/> Other (Explain in Remarks)                    |

**Secondary Indicators (2 or more required)**

- ☐ Water Marks (B1) (**Riverine**)
- ☐ Sediment Deposits (B2) (**Riverine**)
- ☐ Drift Deposits (B3) (**Riverine**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☒ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present? Yes ☐ No ☐ Depth (inches): \_\_\_\_\_

Water Table Present? Yes ☐ No ☐ Depth (inches): \_\_\_\_\_

Saturation Present? Yes ☐ No ☐ Depth (inches): \_\_\_\_\_  
(includes capillary fringe)

**Wetland Hydrology Present?** Yes ☐ No ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Soil is moist but not saturated, but dry time of year.



# WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: WDC MPAC-09262016-3-OUT City/County: Davis County Sampling Date: 9/26/2016  
 Applicant/Owner: \_\_\_\_\_ State: Utah Sampling Point: MPAC-09262016-3-OUT  
 Investigator(s): MP/AC Section, Township, Range: 9 3N 1W  
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): none Slope (%): 0%  
 Subregion (LRR): D Lat: 41.00688962 Long: -111.9606186 Datum: D WGS 1983  
 Soil Map Unit Name: Pintailake-Eimarsh-Playas complex, 0 to 1 percent slopes NWI classification: \_\_\_\_\_  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Hydric Soil Present? Yes _____ No _____	
Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	
Remarks:  Upland vegetation. Didn't sample soils.	

## VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: _____ (A)  Total Number of Dominant Species Across All Strata: _____ (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
_____ = Total Cover				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species <u>90</u> x 5 = <u>450</u> Column Totals: <u>90</u> (A) <u>450</u> (B)  Prevalence Index = B/A = <u>5.0</u>
<b>Sapling/Shrub Stratum (Plot size: _____)</b> 1. _____ 2. _____ 3. _____ 4. _____ 5. _____ _____ = Total Cover				
<b>Herb Stratum (Plot size: <u>5 ft. radius</u>)</b> 1. <u>Thinopyrum intermedium</u> <u>90%</u> <u>Yes</u> <u>NL</u> 2. _____ 3. _____ 4. _____ 5. _____ 6. _____ 7. _____ 8. _____ _____ = Total Cover				
<b>Woody Vine Stratum (Plot size: _____)</b> 1. _____ 2. _____ _____ = Total Cover				
% Bare Ground in Herb Stratum <u>10%</u> % Cover of Biotic Crust _____				
Remarks:				<b>Hydrophytic Vegetation Indicators:</b> ___ Dominance Test is >50% ___ Prevalence Index is ≤3.0 <sup>1</sup> ___ Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
				<b>Hydrophytic Vegetation Present?</b> Yes _____ No <input checked="" type="checkbox"/>

## SOIL

Sampling Point: MPAC-0924

[illegible]

## HYDROLOGY

Wetland Hydrology Indicators:			
Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (2 or more required)	
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) ( <b>Riverine</b> )	
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) ( <b>Riverine</b> )	
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) ( <b>Riverine</b> )	
<input type="checkbox"/> Water Marks (B1) ( <b>Nonriverine</b> )	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)	
<input type="checkbox"/> Sediment Deposits (B2) ( <b>Nonriverine</b> )	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)	
<input type="checkbox"/> Drift Deposits (B3) ( <b>Nonriverine</b> )	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Crayfish Burrows (C8)	
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)	
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)	
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> FAC-Neutral Test (D5)	
<b>Field Observations:</b> Surface Water Present?    Yes <input type="checkbox"/> No <input type="checkbox"/> Depth (inches): _____ Water Table Present?    Yes <input type="checkbox"/> No <input type="checkbox"/> Depth (inches): _____ Saturation Present?    Yes <input type="checkbox"/> No <input type="checkbox"/> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Remarks:			
Dry. No indicators observed.			

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 6/26/2013  
 Applicant/Owner: UDOT State: UT Map/Sheet: 11 Sampling Point: 18-N-201306261105  
 Investigators: Nate Nichols Mike Perkins Section, Township, Range S 8 T 4 R 2  
 Landform (hillslope, terrace, etc.): Depression Local Relief (concave, convex, none): None Slope(%) 3  
 Subregion (LRR): LRR D Lat: 41.096161 Long: -112.085103 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Ford loam, shallow water table, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> <b>Wetland ID:</b> _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	

Remarks:  
 Sampling point just out of drainage wetland, near top of bank in remnant spoil piles.

## VEGETATION— Use scientific names of plants.

	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
<u>Tree Stratum</u>			
<u>Shrub Stratum</u>			
<u>Herb Stratum</u> (Plot size: <u>30 Ft</u> )			
<u>Lepidium latifolium</u>	<u>110</u>	<u>Y</u>	<u>FAC</u>
	<u>110</u>	<u>=Total Cover</u>	
<u>Vine Stratum</u>			

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 1 (A)  
 Total Number of Dominant Species Across all Strata: 1 (B)  
 Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

### Prevalence Index Worksheet:

	Total % Cover of:	Multiply by:
OBL species	<u>0</u>	x 1 = <u>0</u>
FACW species	<u>0</u>	x 2 = <u>0</u>
FAC species	<u>110</u>	x 3 = <u>330</u>
FACU species	<u>0</u>	x 4 = <u>0</u>
UPL species	<u>0</u>	x 5 = <u>0</u>
Column Totals:	<u>110</u> (A)	<u>330</u> (B)
Prevalence Index = B/A= <u>3.00</u>		

### Hydrophytic Vegetation Indicators:

   Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
   Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
   Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No \_\_\_\_\_

% Bare Ground in Herb Stratum 0 % Cover of Biotic Crust 0

Remarks: (Include photo numbers here or on a separate sheet.)

Facultative weedy vegetation qualifies as hydrophytic.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 20	10YR	3 / 2	100				CLAY LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)           |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)       |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)   |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)   |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input type="checkbox"/> Depleted Matrix (F3)       |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)     |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)          |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |   |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- |   |
|---|
| <input type="checkbox"/> 1 cm Muck (A9) (LRR C)     |
| <input type="checkbox"/> 2 cm Muck (A10) (LRR B)    |
| <input type="checkbox"/> Reduced Vertic (F18)       |
| <input type="checkbox"/> Red Parent Material (TF2)  |
| <input type="checkbox"/> Other (Explain in Remarks) |

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No X

## Remarks:

No indicators observed in profile, likely within remant spoils material.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- |   |
|---|
| <input type="checkbox"/> Water Marks (B1) (Riverine)            |
| <input type="checkbox"/> Sediment Deposits (B2) (Riverine)      |
| <input type="checkbox"/> Drift Deposits (B3) (Riverine)         |
| <input type="checkbox"/> Drainage Patterns (B10)                |
| <input type="checkbox"/> Dry-Season Water Table (C2)            |
| <input type="checkbox"/> Crayfish Burrows (C8)                  |
| <input type="checkbox"/> Saturation Visible on Aerial Imag.(C9) |
| <input type="checkbox"/> Shallow Aquitard (D3)                  |
| <input type="checkbox"/> FAC-Neutral Test (D5)                  |

**Field Observations:**Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Water Table Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Saturation Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_

(includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

Completely dry with no hydrology indicators observed.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 6/11/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 11 Sampling Point: 18-W-201206111549  
 Investigators: Mike Perkins Trent Toler Section, Township, Range S 9 T 3 R 1  
 Landform (hillslope, terrace, etc.): Terrace Local Relief (concave, convex, none): Concave Slope(%) 1  
 Subregion (LRR): LRR D Lat: 41.0112557442 Long: -111.96614235 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Syracuse loamy fine sand, 0 to 2 percent slopes NWI Classification: PEMF  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No        (If No, explain in Remarks)  
 Are Vegetation       , Soil       , Hydrology       , significantly disturbed? Are "Normal Circumstances" present? Yes X No         
 Are Vegetation       , Soil       , Hydrology       , naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No <u>      </u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No <u>      </u> Wetland ID: <u>18-IW-01</u>
Hydric Soil Present? Yes <u>X</u> No <u>      </u>	
Wetland Hydrology Present? Yes <u>X</u> No <u>      </u>	

Remarks:  
 Small depression that collects irrigation overflow from grass hay field. No connection.

## VEGETATION— Use scientific names of plants.

<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
<u>40</u>	<u>Y</u>	<u>OBL</u>
<u>15</u>	<u>Y</u>	<u>FAC</u>
<u>15</u>	<u>Y</u>	<u>FAC</u>
<u>10</u>	<u>N</u>	<u>FAC</u>
<u>80</u>	<u>=Total Cover</u>	

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

<u>Eleocharis palustris</u>	<u>40</u>	<u>Y</u>	<u>OBL</u>
<u>Plantago major</u>	<u>15</u>	<u>Y</u>	<u>FAC</u>
<u>Rumex crispus</u>	<u>15</u>	<u>Y</u>	<u>FAC</u>
<u>Hordeum jubatum</u>	<u>10</u>	<u>N</u>	<u>FAC</u>
	<u>80</u>	<u>=Total Cover</u>	

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 3 (A)  
 Total Number of Dominant Species Across all Strata: 3 (B)  
 Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>40</u>	x 1 = <u>40</u>
FACW species <u>0</u>	x 2 = <u>0</u>
FAC species <u>40</u>	x 3 = <u>120</u>
FACU species <u>0</u>	x 4 = <u>0</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>80</u> (A)	<u>160</u> (B)
Prevalence Index = B/A= <u>2.00</u>	

### Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
       Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
       Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No       

% Bare Ground in Herb Stratum 20 % Cover of Biotic Crust       

Remarks: (Include photo numbers here or on a separate sheet.)

FAC veg with spike rush. A few species too eaten to identify.



**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)**

Depth (inches)	Matrix		%	Redox Features				Texture	Remarks
	Color (moist)			Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 4	10YR	3.0 / 2	100					SILTY CLAY LOAM	
4 to 9	10YR	4.0 / 1	85	10YR 4/6	5	C	PL	SILTY CLAY	also: 10YR 2/1 10%
9 to 19	10YR	3.0 / 1	100					SANDY LOAM	sand and gravels

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |  |
|--|--|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)                |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)            |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)        |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)        |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input checked="" type="checkbox"/> Depleted Matrix (F3) |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)         |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7)      |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)          |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)               |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |  |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)  
☐ 2 cm Muck (A10) (LRR B)  
☐ Reduced Vertic (F18)  
☐ Red Parent Material (TF2)  
☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes X No \_\_\_\_\_

## Remarks:

9-19 has calcite fine gravel and sand, w/ a few larger pieces. Soil meets criteria for hydric indicator F3.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)  
☐ Sediment Deposits (B2) (Riverine)  
☐ Drift Deposits (B3) (Riverine)  
☒ Drainage Patterns (B10)  
☐ Dry-Season Water Table (C2)  
☐ Crayfish Burrows (C8)  
☐ Saturation Visible on Aerial Imag.(C9)  
☐ Shallow Aquitard (D3)  
☒ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present?	Yes _____ No <u>X</u>	Depth (inches): _____
Water Table Present?	Yes _____ No <u>X</u>	Depth (inches): _____
Saturation Present?	Yes _____ No <u>X</u>	Depth (inches): _____

(includes capillary fringe)

**Wetland Hydrology Present?** Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

Saturation might occur below 19 inches. Irrigation apparent in area.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 6/26/2013  
 Applicant/Owner: UDOT State: UT Map/Sheet: 11 Sampling Point: 18-W-201306261050  
 Investigators: Mike Perkins Section, Township, Range S 8 T 4 R 2  
 Landform (hillslope, terrace, etc.): Depression Local Relief (concave, convex, none): Concave Slope(%) 3  
 Subregion (LRR): LRR D Lat: 41.096161 Long: -112.085103 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Ford loam, shallow water table, 0 to 1 percent slopes NWI Classification: PEMF  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No        (If No, explain in Remarks)  
 Are Vegetation       , Soil       , Hydrology       , significantly disturbed? Are "Normal Circumstances" present? Yes X No         
 Are Vegetation       , Soil       , Hydrology       , naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No <u>      </u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No <u>      </u> <b>Wetland ID:</b> <u>18-W-67</u>
Hydric Soil Present? Yes <u>X</u> No <u>      </u>	
Wetland Hydrology Present? Yes <u>X</u> No <u>      </u>	

Remarks:  
 Large, wide drainage channel filled with emergent vegetation and standing water; functioning as a wetland.

## VEGETATION— Use scientific names of plants.

**Absolute % Cover**    **Dominant Species**    **Indicator Status**

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

Typha latifolia	75	Y	OBL
Schoenoplectus acutus	40	Y	OBL
	115	=Total Cover	

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across all Strata: 2 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>115</u>	x 1 = <u>115</u>
FACW species <u>0</u>	x 2 = <u>0</u>
FAC species <u>0</u>	x 3 = <u>0</u>
FACU species <u>0</u>	x 4 = <u>0</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>115</u> (A)	<u>115</u> (B)

Prevalence Index = B/A = 1.00

### Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
 Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No       

% Bare Ground in Herb Stratum 0 % Cover of Biotic Crust 0

Remarks: (Include photo numbers here or on a separate sheet.)

Area dominated by emergent obligate vegetation.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)           |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)       |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)   |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)   |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input type="checkbox"/> Depleted Matrix (F3)       |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)     |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)          |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |   |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- |   |
|---|
| <input type="checkbox"/> 1 cm Muck (A9) (LRR C)     |
| <input type="checkbox"/> 2 cm Muck (A10) (LRR B)    |
| <input type="checkbox"/> Reduced Vertic (F18)       |
| <input type="checkbox"/> Red Parent Material (TF2)  |
| <input type="checkbox"/> Other (Explain in Remarks) |

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes X No \_\_\_\_\_**Remarks:**

Area is dominated by obligate vegetation and standing water is present so hydric soils can be assumed.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input checked="" type="checkbox"/> Surface Water (A1)             | <input type="checkbox"/> Salt Crust (B11)                              |
| <input checked="" type="checkbox"/> High Water Table (A2)          | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input checked="" type="checkbox"/> Saturation (A3)                | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- |   |
|---|
| <input type="checkbox"/> Water Marks (B1) (Riverine)            |
| <input type="checkbox"/> Sediment Deposits (B2) (Riverine)      |
| <input type="checkbox"/> Drift Deposits (B3) (Riverine)         |
| <input type="checkbox"/> Drainage Patterns (B10)                |
| <input type="checkbox"/> Dry-Season Water Table (C2)            |
| <input type="checkbox"/> Crayfish Burrows (C8)                  |
| <input type="checkbox"/> Saturation Visible on Aerial Imag.(C9) |
| <input type="checkbox"/> Shallow Aquitard (D3)                  |
| <input checked="" type="checkbox"/> FAC-Neutral Test (D5)       |

**Field Observations:**Surface Water Present? Yes X No \_\_\_\_\_ Depth (inches): 3Water Table Present? Yes X No \_\_\_\_\_ Depth (inches): \_\_\_\_\_Saturation Present? Yes X No \_\_\_\_\_ Depth (inches): 0

(includes capillary fringe)

**Wetland Hydrology Present?** Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

**Remarks:**

Surface water observations provide evidence of wetland hydrology.

# WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: WDC MPAC-09222016-3-IN City/County: Davis County Sampling Date: 9/22/2016  
 Applicant/Owner: UDOT State: Utah Sampling Point: MPAC-09222016-3-IN  
 Investigator(s): MP/AC Section, Township, Range: 9 3N 1W  
 Landform (hillslope, terrace, etc.): terrace/depression Local relief (concave, convex, none): concave Slope (%): 1%  
 Subregion (LRR): D Lat: 41.01210232 Long: -111.968112 Datum: D WGS 1983  
 Soil Map Unit Name: Pintailake-Eimarsh-Playas complex, 0 to 1 percent slopes NWI classification: PEM1/USA  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)  
 Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐  
 Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
Remarks:  Saline playa with wet meadow wetland.			

## VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)  Total Number of Dominant Species Across All Strata: <u>2</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
_____ = Total Cover				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B)  Prevalence Index = B/A = _____
<b>Sapling/Shrub Stratum (Plot size: _____)</b> 1. _____ 2. _____ 3. _____ 4. _____ 5. _____ _____ = Total Cover				
<b>Herb Stratum (Plot size: <u>5 ft. radius</u>)</b> 1. <u>Salicornia rubra</u> <u>15%</u> <u>Yes</u> <u>OBL</u> 2. <u>Suaeda occidentalis</u> <u>5%</u> <u>Yes</u> <u>FACW</u> 3. _____ 4. _____ 5. _____ 6. _____ 7. _____ 8. _____ _____ = Total Cover				
<b>Woody Vine Stratum (Plot size: _____)</b> 1. _____ 2. _____ _____ = Total Cover				
% Bare Ground in Herb Stratum <u>80%</u> % Cover of Biotic Crust _____				
Remarks:				<b>Hydrophytic Vegetation Indicators:</b> <input checked="" type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>				

# SOIL

Sampling Point: MPAC-0924

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-5	10YR 3/1	60%	10YR 6/2	35%	D	M	SiClay	
			10YR 6/8	5%	C	M		
5-11	10YR 6/2	80%	10YR 5/6	10%	C	M	SiClay	
	10YR 3/1	10%						
11-18	10YR 6/2	100%						

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

- ☐ Histosol (A1)  
☐ Histic Epipedon (A2)  
☐ Black Histic (A3)  
☐ Hydrogen Sulfide (A4)  
☐ Stratified Layers (A5) (**LRR C**)  
☐ 1 cm Muck (A9) (**LRR D**)  
☐ Depleted Below Dark Surface (A11)  
☐ Thick Dark Surface (A12)  
☐ Sandy Mucky Mineral (S1)  
☐ Sandy Gleyed Matrix (S4)

- ☐ Sandy Redox (S5)  
☐ Stripped Matrix (S6)  
☐ Loamy Mucky Mineral (F1)  
☐ Loamy Gleyed Matrix (F2)  
☒ Depleted Matrix (F3)  
☒ Redox Dark Surface (F6)  
☒ Depleted Dark Surface (F7)  
☒ Redox Depressions (F8)  
☐ Vernal Pools (F9)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- ☐ 1 cm Muck (A9) (**LRR C**)  
☐ 2 cm Muck (A10) (**LRR B**)  
☐ Reduced Vertic (F18)  
☐ Red Parent Material (TF2)  
☐ Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present? Yes ☒ No ☐**

Remarks:

# HYDROLOGY

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)  
☐ High Water Table (A2)  
☐ Saturation (A3)  
☐ Water Marks (B1) (**Nonriverine**)  
☐ Sediment Deposits (B2) (**Nonriverine**)  
☐ Drift Deposits (B3) (**Nonriverine**)  
☐ Surface Soil Cracks (B6)  
☐ Inundation Visible on Aerial Imagery (B7)  
☐ Water-Stained Leaves (B9)

- ☒ Salt Crust (B11)  
☐ Biotic Crust (B12)  
☐ Aquatic Invertebrates (B13)  
☐ Hydrogen Sulfide Odor (C1)  
☐ Oxidized Rhizospheres along Living Roots (C3)  
☐ Presence of Reduced Iron (C4)  
☐ Recent Iron Reduction in Tilled Soils (C6)  
☐ Thin Muck Surface (C7)  
☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) (**Riverine**)  
☐ Sediment Deposits (B2) (**Riverine**)  
☐ Drift Deposits (B3) (**Riverine**)  
☐ Drainage Patterns (B10)  
☐ Dry-Season Water Table (C2)  
☐ Crayfish Burrows (C8)  
☐ Saturation Visible on Aerial Imagery (C9)  
☐ Shallow Aquitard (D3)  
☒ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present? Yes ☐ No ☒ Depth (inches): \_\_\_\_\_

Water Table Present? Yes ☐ No ☒ Depth (inches): \_\_\_\_\_

Saturation Present? Yes ☐ No ☒ Depth (inches): \_\_\_\_\_  
 (includes capillary fringe)

**Wetland Hydrology Present? Yes ☒ No ☐**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Dry time of year for seasonal wet meadow.



# WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: WDC MPAC-09222016-3-OUT City/County: Davis County Sampling Date: 9/22/2016  
 Applicant/Owner: UDOT State: Utah Sampling Point: MPAC-09222016-3-OUT  
 Investigator(s): MP/AC Section, Township, Range: 9 3N 1W  
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): convex Slope (%): 2%  
 Subregion (LRR): D Lat: 41.01225324 Long: -111.9680985 Datum: D WGS 1983  
 Soil Map Unit Name: Pintailake-Eimarsh-Playas complex, 0 to 1 percent slopes NWI classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Hydric Soil Present? Yes _____ No _____	
Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	
Remarks: Upland vegetation at sampling point. Just upslope from wetland boundary. Didn't sample soils.	

## VEGETATION – Use scientific names of plants.

<b>Tree Stratum</b> (Plot size: _____) 1. _____ 2. _____ 3. _____ 4. _____ _____ = Total Cover <b>Sapling/Shrub Stratum</b> (Plot size: _____) 1. _____ 2. _____ 3. _____ 4. _____ 5. _____ _____ = Total Cover <b>Herb Stratum</b> (Plot size: <u>5 ft. radius</u> ) 1. <u>Hordeum pusillum</u> <u>75%</u> <u>Yes</u> <u>FACU</u> 2. <u>Grindelia squarrosa</u> <u>10%</u> <u></u> <u>FACU</u> 3. <u>Bassia hyssopifolia</u> <u>5%</u> <u></u> <u>FACU</u> 4. _____ 5. _____ 6. _____ 7. _____ 8. _____ _____ <u>90%</u> = Total Cover <b>Woody Vine Stratum</b> (Plot size: _____) 1. _____ 2. _____ _____ = Total Cover % Bare Ground in Herb Stratum <u>15%</u> % Cover of Biotic Crust _____	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B) <b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species <u>90</u> x 4 = <u>360</u> UPL species _____ x 5 = _____ Column Totals: <u>90</u> (A) <u>360</u> (B) Prevalence Index = B/A = <u>4.0</u> <b>Hydrophytic Vegetation Indicators:</b> ___ Dominance Test is >50% ___ Prevalence Index is ≤3.0 <sup>1</sup> ___ Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. <b>Hydrophytic Vegetation Present?</b> Yes _____ No <input checked="" type="checkbox"/>
Remarks:	

## SOIL

Sampling Point: MPAC-0926

[illegible]

## HYDROLOGY

Wetland Hydrology Indicators:		
Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (2 or more required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) ( <b>Riverine</b> )
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) ( <b>Riverine</b> )
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) ( <b>Riverine</b> )
<input type="checkbox"/> Water Marks (B1) ( <b>Nonriverine</b> )	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) ( <b>Nonriverine</b> )	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3) ( <b>Nonriverine</b> )	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <input type="checkbox"/> No <input type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input type="checkbox"/> No <input type="checkbox"/> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks: Dry with no indicators observed.		

# WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: WDC MPAC-09262016-1-IN City/County: Davis County Sampling Date: 9/26/2016  
 Applicant/Owner: UDOT State: Utah Sampling Point: MPAC-09262016-1  
 Investigator(s): MP/AC Section, Township, Range: 9 3N 1W  
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): none Slope (%): 2%  
 Subregion (LRR): D Lat: 41.01040533 Long: -111.9656021 Datum: D WGS 1983  
 Soil Map Unit Name: Pintailake-Eimarsh-Playas complex, 0 to 1 percent slopes NWI classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____	
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	
Remarks:  Mowed field adjacent to wetlands leading to Great Salt Lake.	

## VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)  Total Number of Dominant Species Across All Strata: <u>2</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
_____ = Total Cover				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B)  Prevalence Index = B/A = _____
<b>Sapling/Shrub Stratum</b> (Plot size: _____)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
_____ = Total Cover				<b>Hydrophytic Vegetation Indicators:</b> <input checked="" type="checkbox"/> Dominance Test is >50% _____ Prevalence Index is ≤3.0 <sup>1</sup> _____ Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.  <b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No _____
<b>Herb Stratum</b> (Plot size: <u>5 ft. radius</u> )				
1. <u>Distichlis spicata</u>	<u>75%</u>	<u>Yes</u>	<u>FAC</u>	
2. <u>Eleocharis palustris</u>	<u>20%</u>	<u>Yes</u>	<u>OBL</u>	
3. <u>Cordylanthus maritimus</u>	<u>5%</u>		<u>OBL</u>	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
_____ = Total Cover				
<b>Woody Vine Stratum</b> (Plot size: _____)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
_____ = Total Cover				
% Bare Ground in Herb Stratum _____	% Cover of Biotic Crust _____			
Remarks:				

# SOIL

Sampling Point: MPAC-0924

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-2	10YR 5/3	100%					SiLoam	
2-5	10YR 4/2	80%	10YR 4/6	20%	C	M	SiClLoam	
5-7	10YR 3/1	100%					SaLoam	
7-15	10YR 4/1	90%	Gley 1 2.5/N	10%	C	M	SaLoam	
15-19	10YR 6/2	100%					SaLoam	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) (**LRR C**)
- ☐ 1 cm Muck (A9) (**LRR D**)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)

- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☒ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- ☐ 1 cm Muck (A9) (**LRR C**)
- ☐ 2 cm Muck (A10) (**LRR B**)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes ☒ No ☐

Remarks:

2-5" clay layer with iron redox.

# HYDROLOGY

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☒ Saturation (A3)
- ☐ Water Marks (B1) (**Nonriverine**)
- ☐ Sediment Deposits (B2) (**Nonriverine**)
- ☐ Drift Deposits (B3) (**Nonriverine**)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)

- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) (**Riverine**)
- ☐ Sediment Deposits (B2) (**Riverine**)
- ☐ Drift Deposits (B3) (**Riverine**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☒ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present? Yes ☐ No ☒ Depth (inches): \_\_\_\_\_

Water Table Present? Yes ☒ No ☐ Depth (inches): 5

Saturation Present? Yes ☒ No ☐ Depth (inches): 19  
(includes capillary fringe)

**Wetland Hydrology Present?** Yes ☒ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

# WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: WDC MPAC-09262016-1-OUT City/County: Davis County Sampling Date: 9/26/2016  
 Applicant/Owner: UDOT State: Utah Sampling Point: MPAC-09262016-1-OUT  
 Investigator(s): MP/AC Section, Township, Range: 9 3N 1W  
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): none Slope (%): 0%  
 Subregion (LRR): D Lat: 41.01046287 Long: -111.9656232 Datum: D WGS 1983  
 Soil Map Unit Name: Pintailake-Eimarsh-Playas complex, 0 to 1 percent slopes NWI classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Hydric Soil Present? Yes _____ No _____	
Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	
Remarks: Upland vegetation. Didn't sample soils.	

## VEGETATION – Use scientific names of plants.

<b>Tree Stratum</b> (Plot size: _____) 1. _____ 2. _____ 3. _____ 4. _____ _____ = Total Cover <b>Sapling/Shrub Stratum</b> (Plot size: _____) 1. _____ 2. _____ 3. _____ 4. _____ 5. _____ _____ = Total Cover <b>Herb Stratum</b> (Plot size: <u>5 ft. radius</u> ) 1. <u>Schedonorus pratensis</u> <u>90%</u> <u>Yes</u> <u>FACU</u> 2. <u>Eleocharis palustris</u> <u>10%</u> <u></u> <u>OBL</u> 3. <u>Medicago sativa</u> <u>5%</u> <u></u> <u>UPL</u> 4. _____ 5. _____ 6. _____ 7. _____ 8. _____ _____ = Total Cover <b>Woody Vine Stratum</b> (Plot size: _____) 1. _____ 2. _____ _____ = Total Cover % Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B) <b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species <u>10</u> x 1 = <u>10</u> FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species <u>90</u> x 4 = <u>360</u> UPL species <u>5</u> x 5 = <u>25</u> Column Totals: <u>105</u> (A) <u>395</u> (B) Prevalence Index = B/A = <u>3.76</u> <b>Hydrophytic Vegetation Indicators:</b> _____ Dominance Test is >50% _____ Prevalence Index is ≤3.0 <sup>1</sup> _____ Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. <b>Hydrophytic Vegetation Present?</b> Yes _____ No <input checked="" type="checkbox"/>
Remarks:	



## SOIL

Sampling Point: MPAC-0926

[illegible]

## HYDROLOGY

Wetland Hydrology Indicators:		
Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (2 or more required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) ( <b>Riverine</b> )
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) ( <b>Riverine</b> )
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) ( <b>Riverine</b> )
<input type="checkbox"/> Water Marks (B1) ( <b>Nonriverine</b> )	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) ( <b>Nonriverine</b> )	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3) ( <b>Nonriverine</b> )	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present?    Yes <input type="checkbox"/> No <input type="checkbox"/> Depth (inches): _____ Water Table Present?    Yes <input type="checkbox"/> No <input type="checkbox"/> Depth (inches): _____ Saturation Present?    Yes <input type="checkbox"/> No <input type="checkbox"/> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		
Dry. No indicators observed.		

# WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: WDC MPAC-09262016-2-IN City/County: Davis County Sampling Date: 9/26/2016  
 Applicant/Owner: UDOT State: Utah Sampling Point: MPAC-09262016-2  
 Investigator(s): MP/AC Section, Township, Range: 9 3N 1W  
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): none Slope (%): 0%  
 Subregion (LRR): D Lat: 41.01288293 Long: -111.9675638 Datum: D WGS 1983  
 Soil Map Unit Name: Syracuse loamy fine sand, 0 to 2 percent slopes NWI classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland?	Yes <input checked="" type="checkbox"/> No _____
Hydric Soil Present?	Yes <input checked="" type="checkbox"/> No _____		
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/> No _____		
Remarks:			

## VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)  Total Number of Dominant Species Across All Strata: <u>2</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50%</u> (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
_____ = Total Cover				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species <u>71</u> x 2 = <u>142</u> FAC species _____ x 3 = _____ FACU species <u>70</u> x 4 = <u>280</u> UPL species _____ x 5 = _____ Column Totals: <u>141</u> (A) <u>422</u> (B)  Prevalence Index = B/A = <u>2.99</u>
<b>Sapling/Shrub Stratum (Plot size: _____)</b> 1. _____ 2. _____ 3. _____ 4. _____ 5. _____ _____ = Total Cover				
<b>Herb Stratum (Plot size: <u>5 ft. radius</u>)</b> 1. <u>Schedonorus pratensis</u> <u>70%</u> <u>Yes</u> <u>FACU</u> 2. <u>Juncus arcticus</u> <u>70%</u> <u>Yes</u> <u>FACW</u> 3. <u>Persicaria maculosa</u> <u>1%</u> _____ <u>FACW</u> 4. _____ 5. _____ 6. _____ 7. _____ 8. _____ <u>141</u> = Total Cover				
<b>Woody Vine Stratum (Plot size: _____)</b> 1. _____ 2. _____ _____ = Total Cover				
% Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____				
Remarks:				<b>Hydrophytic Vegetation Indicators:</b> _____ Dominance Test is >50% <input checked="" type="checkbox"/> Prevalence Index is ≤3.0 <sup>1</sup> _____ Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
				<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No _____

# SOIL

Sampling Point: MPAC-0924

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-6	10YR 3/2	100%					SiClLoam	
6-10	10YR 3/2	75%	10YR 5/2	25%	D	M	SaClLoam	
10-18	10YR 4/2	15%	5YR 3/4	10%	C	M	SaClLoam	
	10YR 5/2	75%						

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

- |  |  |
|--|--|
| <input type="checkbox"/> Histosol (A1)                           | <input type="checkbox"/> Sandy Redox (S5)                |
| <input type="checkbox"/> Histic Epipedon (A2)                    | <input type="checkbox"/> Stripped Matrix (S6)            |
| <input type="checkbox"/> Black Histic (A3)                       | <input type="checkbox"/> Loamy Mucky Mineral (F1)        |
| <input type="checkbox"/> Hydrogen Sulfide (A4)                   | <input type="checkbox"/> Loamy Gleyed Matrix (F2)        |
| <input type="checkbox"/> Stratified Layers (A5) ( <b>LRR C</b> ) | <input checked="" type="checkbox"/> Depleted Matrix (F3) |
| <input type="checkbox"/> 1 cm Muck (A9) ( <b>LRR D</b> )         | <input type="checkbox"/> Redox Dark Surface (F6)         |
| <input type="checkbox"/> Depleted Below Dark Surface (A11)       | <input type="checkbox"/> Depleted Dark Surface (F7)      |
| <input type="checkbox"/> Thick Dark Surface (A12)                | <input type="checkbox"/> Redox Depressions (F8)          |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)                | <input type="checkbox"/> Vernal Pools (F9)               |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)                |  |

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- ☐ 1 cm Muck (A9) (**LRR C**)
- ☐ 2 cm Muck (A10) (**LRR B**)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present? Yes ☒ No ☐**

Remarks:

# HYDROLOGY

**Wetland Hydrology Indicators:**

**Primary Indicators (minimum of one required; check all that apply)**

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                            | <input type="checkbox"/> Salt Crust (B11)                              |
| <input checked="" type="checkbox"/> High Water Table (A2)              | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input checked="" type="checkbox"/> Saturation (A3)                    | <input type="checkbox"/> Aquatic Invertebrates (B13)                   |
| <input type="checkbox"/> Water Marks (B1) ( <b>Nonriverine</b> )       | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) ( <b>Nonriverine</b> ) | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) ( <b>Nonriverine</b> )    | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                      | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)     | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                     | <input type="checkbox"/> Other (Explain in Remarks)                    |

**Secondary Indicators (2 or more required)**

- ☐ Water Marks (B1) (**Riverine**)
- ☐ Sediment Deposits (B2) (**Riverine**)
- ☐ Drift Deposits (B3) (**Riverine**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☒ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present? Yes ☐ No ☒ Depth (inches): \_\_\_\_\_

Water Table Present? Yes ☒ No ☐ Depth (inches): 8"

Saturation Present? Yes ☒ No ☐ Depth (inches): 18"  
(includes capillary fringe)

**Wetland Hydrology Present? Yes ☒ No ☐**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

# WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: WDC MPAC-09262016-2-OUT City/County: Davis County Sampling Date: 9/26/2016  
 Applicant/Owner: UDOT State: Utah Sampling Point: MPAC-09262016-2-OUT  
 Investigator(s): MP/AC Section, Township, Range: 9 3N 1W  
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): none Slope (%): 0%  
 Subregion (LRR): D Lat: 41.01290418 Long: -111.9677941 Datum: D WGS 1983  
 Soil Map Unit Name: Syracuse loamy fine sand, 0 to 2 percent slopes NWI classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Hydric Soil Present? Yes _____ No _____	
Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	
Remarks:  Upland vegetation. Didn't sample soils.	

## VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>0</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
_____ = Total Cover				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species <u>120</u> x 4 = <u>480</u> UPL species <u>50</u> x 5 = <u>250</u> Column Totals: <u>170</u> (A) <u>730</u> (B) Prevalence Index = B/A = <u>4.29</u>
<b>Sapling/Shrub Stratum (Plot size: _____)</b> 1. _____ 2. _____ 3. _____ 4. _____ 5. _____ _____ = Total Cover				
<b>Herb Stratum (Plot size: <u>5 ft. radius</u>)</b> 1. <u>Schedonorus pratensis</u> <u>100%</u> <u>Yes</u> <u>FACU</u> 2. <u>Medicago sativa</u> <u>25%</u> <u></u> <u>UPL</u> 3. <u>Lactuca serriola</u> <u>10%</u> <u></u> <u>FACU</u> 4. <u>Cichorium intybus</u> <u>10%</u> <u></u> <u>FACU</u> 5. <u>Thinopyrum intermedium</u> <u>25%</u> <u></u> <u>NL</u> 6. <u>Symphytotrichum sp. ?</u> <u>5%</u> <u></u> <u>?</u> 7. _____ 8. _____ <u>175%</u> = Total Cover				
<b>Woody Vine Stratum (Plot size: _____)</b> 1. _____ 2. _____ _____ = Total Cover				
% Bare Ground in Herb Stratum <u>0</u> % Cover of Biotic Crust <u>0</u>				
Remarks:				<b>Hydrophytic Vegetation Indicators:</b> ___ Dominance Test is >50% ___ Prevalence Index is ≤3.0 <sup>1</sup> ___ Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
<b>Hydrophytic Vegetation Present?</b> Yes _____ No <input checked="" type="checkbox"/>				

## SOIL

Sampling Point: MPAC-0926

[illegible]

## HYDROLOGY

Wetland Hydrology Indicators:		
Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (2 or more required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) ( <b>Riverine</b> )
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) ( <b>Riverine</b> )
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) ( <b>Riverine</b> )
<input type="checkbox"/> Water Marks (B1) ( <b>Nonriverine</b> )	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) ( <b>Nonriverine</b> )	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3) ( <b>Nonriverine</b> )	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present?    Yes <input type="checkbox"/> No <input type="checkbox"/> Depth (inches): _____ Water Table Present?    Yes <input type="checkbox"/> No <input type="checkbox"/> Depth (inches): _____ Saturation Present?    Yes <input type="checkbox"/> No <input type="checkbox"/> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:  Dry. No indicators observed.		



# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 6/7/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 10 Sampling Point: 17-N-201206071020  
 Investigators: Ron Kass Paul Dawson Section, Township, Range S 5 T 3 R 1  
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): None Slope(%) 1  
 Subregion (LRR): LRR D Lat: 41.0235897747 Long: -111.977337736 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Airport silt loam, 0 to 2 percent slopes NWI Classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> <b>Wetland ID:</b> _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	

Remarks:  
 Upland pasture with marginal vegetation. No hydrology and no soils; not a wetland.

## VEGETATION— Use scientific names of plants.

**Absolute % Cover** **Dominant Species** **Indicator Status**

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

Carex praegracilis	30	Y	FACW
Festuca pratensis	30	Y	FACU
Juncus arcticus	30	Y	FACW
Trifolium fragiferum	10	N	FACU
	100	=Total Cover	

### Vine Stratum

## Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across all Strata: 3 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 66.7% (A/B)

## Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>60</u>	x 2 = <u>120</u>
FAC species <u>0</u>	x 3 = <u>0</u>
FACU species <u>40</u>	x 4 = <u>160</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>100</u> (A)	<u>280</u> (B)

Prevalence Index = B/A = 2.80

## Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
 Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No \_\_\_\_\_

% Bare Ground in Herb Stratum \_\_\_\_\_ % Cover of Biotic Crust \_\_\_\_\_

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation is hydrophytic.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 18	10YR	4.0 / 2		100			SILTY CLAY LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)           |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)       |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)   |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)   |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input type="checkbox"/> Depleted Matrix (F3)       |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)     |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)          |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |   |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- |   |
|---|
| <input type="checkbox"/> 1 cm Muck (A9) (LRR C)     |
| <input type="checkbox"/> 2 cm Muck (A10) (LRR B)    |
| <input type="checkbox"/> Reduced Vertic (F18)       |
| <input type="checkbox"/> Red Parent Material (TF2)  |
| <input type="checkbox"/> Other (Explain in Remarks) |

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No X

## Remarks:

Soil fails to indicate hydric conditions.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- |   |
|---|
| <input type="checkbox"/> Water Marks (B1) (Riverine)            |
| <input type="checkbox"/> Sediment Deposits (B2) (Riverine)      |
| <input type="checkbox"/> Drift Deposits (B3) (Riverine)         |
| <input checked="" type="checkbox"/> Drainage Patterns (B10)     |
| <input type="checkbox"/> Dry-Season Water Table (C2)            |
| <input type="checkbox"/> Crayfish Burrows (C8)                  |
| <input type="checkbox"/> Saturation Visible on Aerial Imag.(C9) |
| <input type="checkbox"/> Shallow Aquitard (D3)                  |
| <input checked="" type="checkbox"/> FAC-Neutral Test (D5)       |

**Field Observations:**Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Water Table Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Saturation Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_

(includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

Dry area lacks sufficient evidence for wetland hydrology.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 6/7/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 10 Sampling Point: 17-N-201206071056  
 Investigators: Ron Kass Paul Dawson Section, Township, Range S 5 T 3 R 1  
 Landform (hillslope, terrace, etc.): Basin Local Relief (concave, convex, none): Convex Slope(%) 5  
 Subregion (LRR): LRR D Lat: 41.0212629914 Long: -111.973443658 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Ironton silt loam, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> Wetland ID: _____
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes _____ No <u>X</u>	

Remarks:  
 Sampling point in pasture not a wetland.

## VEGETATION— Use scientific names of plants.

**Absolute % Cover** **Dominant Species** **Indicator Status**

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

Elymus repens	30	Y	FAC
Trifolium fragiferum	30	Y	FACU
Lepidium latifolium	10	N	FAC
Iva axillaris	5	N	FAC
	75	=Total Cover	

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 1 (A)  
 Total Number of Dominant Species Across all Strata: 2 (B)  
 Percent of Dominant Species That are OBL, FACW, or FAC: 50.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>0</u>	x 2 = <u>0</u>
FAC species <u>45</u>	x 3 = <u>135</u>
FACU species <u>30</u>	x 4 = <u>120</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>75</u> (A)	<u>255</u> (B)
Prevalence Index = B/A= <u>3.40</u>	

### Hydrophytic Vegetation Indicators:

☐ Rapid Test for Hydrophytic Vegetation  
☐ Dominance Test > 50%  
☐ Prevalence Index ≤ 3.0  
☐ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
☐ Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes \_\_\_\_\_ No X

% Bare Ground in Herb Stratum \_\_\_\_\_ % Cover of Biotic Crust \_\_\_\_\_

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation is not hydrophytic.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix			Redox Features				Texture	Remarks
	Color (moist)		%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 8	10YR	4.0 / 1	100					SILTY CLAY LOAM	
8 to 18	10YR	5.0 / 1	100					SILT LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- ☐ Histosol (A1)  
☐ Histic Epipedon (A2)  
☐ Black Histic (A3)  
☐ Hydrogen Sulfide (A4)  
☐ Stratified Layers (A5) LRR C  
☐ 1 cm Muck (A9) LRR F D  
☐ Depleted Below Dark Surface (A11)  
☐ Thick Dark Surface (A12)  
☐ Sandy Mucky Mineral (S1)  
☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)  
☐ Stripped Matrix (S6)  
☐ Loamy Mucky Mineral (F1)  
☐ Loamy Gleyed Matrix (F2)  
☒ Depleted Matrix (F3)  
☐ Redox Dark Surface (F6)  
☐ Depleted Dark Surface (F7)  
☐ Redox Depressions (F8)  
☐ Vernal Pools (F9)

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)  
☐ 2 cm Muck (A10) (LRR B)  
☐ Reduced Vertic (F18)  
☐ Red Parent Material (TF2)  
☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes X No \_\_\_\_\_

## Remarks:

Soil meets criteria for hydric indicator F3.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)  
☐ High Water Table (A2)  
☐ Saturation (A3)  
☐ Water Marks (B1) (Nonriverine)  
☐ Sediment Deposits (B2) (Nonriverine)  
☐ Drift Deposits (B3) (Nonriverine)  
☐ Surface Soil Cracks (B6)  
☐ Inundation Visible on Aerial Imagery (B7)  
☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)  
☐ Biotic Crust (B12)  
☐ Aquatic Fauna (B13)  
☐ Hydrogen Sulfide Odor (C1)  
☐ Oxidized Rhizospheres along Living Roots (C3)  
☐ Presence of Reduced Iron (C4)  
☐ Recent Iron Reduction in Tilled Soils (C6)  
☐ Thin Muck Surface (C7)  
☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)  
☐ Sediment Deposits (B2) (Riverine)  
☐ Drift Deposits (B3) (Riverine)  
☐ Drainage Patterns (B10)  
☐ Dry-Season Water Table (C2)  
☐ Crayfish Burrows (C8)  
☐ Saturation Visible on Aerial Imag.(C9)  
☐ Shallow Aquitard (D3)  
☐ FAC-Neutral Test (D5)

**Field Observations:**Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Water Table Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Saturation Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_

(includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

No hydrology indicators observed.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 6/7/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 10 Sampling Point: 17-N-201206071145  
 Investigators: Ron Kass Paul Dawson Section, Township, Range S 5 T 3 R 1  
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): None Slope(%) 2  
 Subregion (LRR): LRR D Lat: 41.0208361776 Long: -111.97296827 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Logan silty clay loam, 0 to 3 percent slopes NWI Classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> <b>Wetland ID:</b> _____
Hydric Soil Present?	Yes _____ No <u>X</u>	
Wetland Hydrology Present?	Yes _____ No <u>X</u>	

Remarks:  
 Upland pasture.

## VEGETATION— Use scientific names of plants.

<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
90	Y	FACU
10	N	FACU
100	=Total Cover	

Tree Stratum

Shrub Stratum

Herb Stratum (Plot size: 30 Ft )

Festuca pratensis

Trifolium fragiferum

Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 0 (A)  
 Total Number of Dominant Species Across all Strata: 1 (B)  
 Percent of Dominant Species That are OBL, FACW, or FAC: 0.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>0</u>	x 2 = <u>0</u>
FAC species <u>0</u>	x 3 = <u>0</u>
FACU species <u>100</u>	x 4 = <u>400</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>100</u> (A)	<u>400</u> (B)
Prevalence Index = B/A= <u>4.00</u>	

### Hydrophytic Vegetation Indicators:

☐ Rapid Test for Hydrophytic Vegetation  
☐ Dominance Test > 50%  
☐ Prevalence Index ≤ 3.0  
☐ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
☐ Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes \_\_\_\_\_ No X

% Bare Ground in Herb Stratum \_\_\_\_\_ % Cover of Biotic Crust \_\_\_\_\_

Remarks: (Include photo numbers here or on a separate sheet.)  
 Vegetation is not hydrophytic.



**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)		Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 18	10YR	4.0 / 2		5	C	M	SILTY CLAY LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)           |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)       |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)   |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)   |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input type="checkbox"/> Depleted Matrix (F3)       |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)     |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)          |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |   |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)  
☐ 2 cm Muck (A10) (LRR B)  
☐ Reduced Vertic (F18)  
☐ Red Parent Material (TF2)  
☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No X

## Remarks:

Soil fails to indicate hydric conditions.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)  
☐ Sediment Deposits (B2) (Riverine)  
☐ Drift Deposits (B3) (Riverine)  
☐ Drainage Patterns (B10)  
☐ Dry-Season Water Table (C2)  
☐ Crayfish Burrows (C8)  
☐ Saturation Visible on Aerial Imag.(C9)  
☐ Shallow Aquitard (D3)  
☐ FAC-Neutral Test (D5)

**Field Observations:**Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Water Table Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Saturation Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_

(includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

No hydrology indicators observed.

## Remarks:

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 6/7/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 10 Sampling Point: 17-N-201206071249  
 Investigators: Ron Kass Paul Dawson Section, Township, Range S 5 T 3 R 1  
 Landform (hillslope, terrace, etc.): Basin Local Relief (concave, convex, none): Concave Slope(%) 0  
 Subregion (LRR): LRR D Lat: 41.02 Long: -111.97 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Cudahy silt loam, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes \_\_\_\_\_ No X  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology X, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> Wetland ID: _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks:  
 Small area that collects irrigation water at times.

## VEGETATION— Use scientific names of plants.

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
Agrostis stolonifera	30	Y	FACW
Trifolium fragiferum	30	Y	FACU
Hordeum jubatum	20	Y	FAC
Polygonum ramosissimum	10	N	FAC
Eleocharis palustris	5	N	OBL
Plantago major	5	N	FAC
	100	=Total Cover	

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across all Strata: 3 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 66.7% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>5</u>	x 1 = <u>5</u>
FACW species <u>30</u>	x 2 = <u>60</u>
FAC species <u>35</u>	x 3 = <u>105</u>
FACU species <u>30</u>	x 4 = <u>120</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>100</u> (A)	<u>290</u> (B)

Prevalence Index = B/A = 2.90

### Hydrophytic Vegetation Indicators:

\_\_\_\_ Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
 \_\_\_\_ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 \_\_\_\_ Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No \_\_\_\_\_

% Bare Ground in Herb Stratum 3 % Cover of Biotic Crust \_\_\_\_\_

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation is hydrophytic.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix			Redox Features				Texture	Remarks
	Color (moist)		%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 14	10YR	3.0 / 2	100					SILTY CLAY LOAM	
14 to 18	10YR	5.0 / 2	95	10YR 5/6	5	C	M	SILTY CLAY LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- ☐ Histosol (A1)  
☐ Histic Epipedon (A2)  
☐ Black Histic (A3)  
☐ Hydrogen Sulfide (A4)  
☐ Stratified Layers (A5) LRR C  
☐ 1 cm Muck (A9) LRR F D  
☐ Depleted Below Dark Surface (A11)  
☐ Thick Dark Surface (A12)  
☐ Sandy Mucky Mineral (S1)  
☐ Sandy Gleyed Matrix (S4)

- ☐ Sandy Redox (S5)  
☐ Stripped Matrix (S6)  
☐ Loamy Mucky Mineral (F1)  
☐ Loamy Gleyed Matrix (F2)  
☐ Depleted Matrix (F3)  
☐ Redox Dark Surface (F6)  
☐ Depleted Dark Surface (F7)  
☐ Redox Depressions (F8)  
☐ Vernal Pools (F9)

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)  
☐ 2 cm Muck (A10) (LRR B)  
☐ Reduced Vertic (F18)  
☐ Red Parent Material (TF2)  
☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No X

## Remarks:

Depleted layer starts too deep (at 14 in) and is too narrow for hydric indicator F3, though close.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- ☒ Surface Water (A1)  
☒ High Water Table (A2)  
☒ Saturation (A3)  
☐ Water Marks (B1) (Nonriverine)  
☐ Sediment Deposits (B2) (Nonriverine)  
☐ Drift Deposits (B3) (Nonriverine)  
☐ Surface Soil Cracks (B6)  
☐ Inundation Visible on Aerial Imagery (B7)  
☐ Water-Stained Leaves (B9)  
☐ Salt Crust (B11)  
☐ Biotic Crust (B12)  
☐ Aquatic Fauna (B13)  
☐ Hydrogen Sulfide Odor (C1)  
☐ Oxidized Rhizospheres along Living Roots (C3)  
☐ Presence of Reduced Iron (C4)  
☐ Recent Iron Reduction in Tilled Soils (C6)  
☐ Thin Muck Surface (C7)  
☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)  
☐ Sediment Deposits (B2) (Riverine)  
☐ Drift Deposits (B3) (Riverine)  
☒ Drainage Patterns (B10)  
☐ Dry-Season Water Table (C2)  
☐ Crayfish Burrows (C8)  
☐ Saturation Visible on Aerial Imag.(C9)  
☐ Shallow Aquitard (D3)  
☒ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present? Yes X No \_\_\_\_\_ Depth (inches): 0-3  
 Water Table Present? Yes X No \_\_\_\_\_ Depth (inches): 0  
 Saturation Present? Yes X No \_\_\_\_\_ Depth (inches): 0  
 (includes capillary fringe)

**Wetland Hydrology Present?** Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

Hydrology likely driven by irrigation, very wet and flooded at the time of survey.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 6/7/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 10 Sampling Point: 17-N-201206071340  
 Investigators: Ron Kass Paul Dawson Section, Township, Range S 5 T 3 R 1  
 Landform (hillslope, terrace, etc.): Basin Local Relief (concave, convex, none): None Slope(%) 30  
 Subregion (LRR): LRR D Lat: 41.0202887878 Long: -111.973017787 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Logan silty clay loam, 0 to 3 percent slopes NWI Classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes \_\_\_\_\_ No X (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland?	Yes _____ No <u>X</u>
Hydric Soil Present?	Yes _____ No <u>X</u>		
Wetland Hydrology Present?	Yes _____ No <u>X</u>		Wetland ID: _____

Remarks:  
 Basin banking upland

## VEGETATION— Use scientific names of plants.

Absolute  
% Cover

Dominant  
Species

Indicator  
Status

Tree Stratum

Shrub Stratum

Herb Stratum (Plot size: 30 Ft )

Festuca pratensis

90

Y

FACU

90

=Total Cover

Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species  
That are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant  
Species Across all Strata: 1 (B)

Percent of Dominant Species  
That are OBL, FACW, or FAC: 0.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	<u>0</u>	x 1 =	<u>0</u>
FACW species	<u>0</u>	x 2 =	<u>0</u>
FAC species	<u>0</u>	x 3 =	<u>0</u>
FACU species	<u>90</u>	x 4 =	<u>360</u>
UPL species	<u>0</u>	x 5 =	<u>0</u>
Column Totals:	<u>90</u> (A)		<u>360</u> (B)

Prevalence Index = B/A= 4.00

### Hydrophytic Vegetation Indicators:

\_\_\_\_ Rapid Test for Hydrophytic Vegetation  
 \_\_\_\_ Dominance Test > 50%  
 \_\_\_\_ Prevalence Index ≤ 3.0  
 \_\_\_\_ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 \_\_\_\_ Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic  
Vegetation Present?** Yes \_\_\_\_\_ No X

% Bare Ground in Herb Stratum 5 % Cover of Biotic Crust

Remarks: (Include photo numbers here or on a separate sheet.)  
 Vegetation is not hydrophytic.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 18	10YR	4.0 / 2		100			SILTY CLAY LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)           |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)       |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)   |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)   |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input type="checkbox"/> Depleted Matrix (F3)       |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)     |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)          |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |   |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- |   |
|---|
| <input type="checkbox"/> 1 cm Muck (A9) (LRR C)     |
| <input type="checkbox"/> 2 cm Muck (A10) (LRR B)    |
| <input type="checkbox"/> Reduced Vertic (F18)       |
| <input type="checkbox"/> Red Parent Material (TF2)  |
| <input type="checkbox"/> Other (Explain in Remarks) |

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No X

## Remarks:

Soil fails to indicate hydric conditions.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- |   |
|---|
| <input type="checkbox"/> Water Marks (B1) (Riverine)            |
| <input type="checkbox"/> Sediment Deposits (B2) (Riverine)      |
| <input type="checkbox"/> Drift Deposits (B3) (Riverine)         |
| <input type="checkbox"/> Drainage Patterns (B10)                |
| <input type="checkbox"/> Dry-Season Water Table (C2)            |
| <input type="checkbox"/> Crayfish Burrows (C8)                  |
| <input type="checkbox"/> Saturation Visible on Aerial Imag.(C9) |
| <input type="checkbox"/> Shallow Aquitard (D3)                  |
| <input type="checkbox"/> FAC-Neutral Test (D5)                  |

**Field Observations:**Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Water Table Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Saturation Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_

(includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

No hydrology indicators observed.



# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 6/7/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 10 Sampling Point: 17-N-201206071357  
 Investigators: Ron Kass Paul Dawson Section, Township, Range S 5 T 3 R 1  
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): None Slope(%) 3  
 Subregion (LRR): LRR D Lat: 41.0194897445 Long: -111.974181472 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Logan silty clay loam, 0 to 3 percent slopes NWI Classification: \_\_\_\_\_  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation X, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes \_\_\_\_\_ No X  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland?	Yes _____ No <u>X</u>
Hydric Soil Present?	Yes _____ No <u>X</u>		
Wetland Hydrology Present?	Yes _____ No <u>X</u>		Wetland ID: _____

Remarks:  
 Upland corral.

## VEGETATION— Use scientific names of plants.

<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
<u>50</u>	<u>Y</u>	<u>UPL</u>
<u>10</u>	<u>N</u>	<u>FACU</u>
<u>60</u>	=Total Cover	

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

Bromus tectorum

Grindelia squarrosa

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species  
That are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant  
Species Across all Strata: 1 (B)

Percent of Dominant Species  
That are OBL, FACW, or FAC: 0.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>0</u>	x 2 = <u>0</u>
FAC species <u>0</u>	x 3 = <u>0</u>
FACU species <u>10</u>	x 4 = <u>40</u>
UPL species <u>50</u>	x 5 = <u>250</u>
Column Totals: <u>60</u> (A)	<u>290</u> (B)

Prevalence Index = B/A = 4.83

### Hydrophytic Vegetation Indicators:

☐ Rapid Test for Hydrophytic Vegetation  
☐ Dominance Test > 50%  
☐ Prevalence Index ≤ 3.0  
☐ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
☐ Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic  
Vegetation Present? Yes \_\_\_\_\_ No X

% Bare Ground in Herb Stratum 40 % Cover of Biotic Crust

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation is not hydrophytic.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 18	10YR	4.0 / 2		100			SILTY CLAY LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)           |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)       |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)   |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)   |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input type="checkbox"/> Depleted Matrix (F3)       |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)     |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)          |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |   |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- |   |
|---|
| <input type="checkbox"/> 1 cm Muck (A9) (LRR C)     |
| <input type="checkbox"/> 2 cm Muck (A10) (LRR B)    |
| <input type="checkbox"/> Reduced Vertic (F18)       |
| <input type="checkbox"/> Red Parent Material (TF2)  |
| <input type="checkbox"/> Other (Explain in Remarks) |

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No X

## Remarks:

Soil fails to indicate hydric conditions.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- |   |
|---|
| <input type="checkbox"/> Water Marks (B1) (Riverine)            |
| <input type="checkbox"/> Sediment Deposits (B2) (Riverine)      |
| <input type="checkbox"/> Drift Deposits (B3) (Riverine)         |
| <input type="checkbox"/> Drainage Patterns (B10)                |
| <input type="checkbox"/> Dry-Season Water Table (C2)            |
| <input type="checkbox"/> Crayfish Burrows (C8)                  |
| <input type="checkbox"/> Saturation Visible on Aerial Imag.(C9) |
| <input type="checkbox"/> Shallow Aquitard (D3)                  |
| <input type="checkbox"/> FAC-Neutral Test (D5)                  |

**Field Observations:**Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Water Table Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Saturation Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_

(includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

No hydrology indicators observed.

Project Site:	<u>West Davis Corridor</u>	City/County:	<u>Davis County</u>	Sampling Date:	<u>6/7/2012</u>
Applicant/Owner:	<u>UDOT</u>	State:	<u>UT</u>	Map/Sheet:	<u>10</u>
Investigators:	<u>Ron Kass</u>	<u>Paul Dawson</u>	Section, Township, Range	<u>S 5</u>	<u>T 3</u>
				<u>R 1</u>	
Landform (hillslope, terrace, etc.):	<u>Flat</u>	Local Relief (concave, convex, none):	<u>None</u>	Slope(%)	<u>1</u>
Subregion (LRR):	<u>LRR D</u>	Lat:	<u>41.0204572441</u>	Long:	<u>-111.974923939</u>
				Datum:	<u>GCS_WGS_1984</u>
Soil Map Unit Name:	<u>Logan silty clay loam, 0 to 3 percent slopes</u>			NWI Classification:	
Are climatic / hydrologic conditions on the site typical for this time of year?		Yes	<u>X</u>	No	<u>      </u> (If No, explain in Remarks)
Are Vegetation <u>      </u> , Soil <u>      </u> , Hydrology <u>      </u> , significantly disturbed?		Are "Normal Circumstances" present? Yes <u>X</u> No <u>      </u>			
Are Vegetation <u>      </u> , Soil <u>      </u> , Hydrology <u>      </u> , naturally problematic?		(If needed, explain any answers in Remarks.)			

Hydrophytic Vegetation Present?	Yes	No	X	<b>Is the Sampled Area within a Wetland?</b> Yes      No      X <b>Wetland ID:</b>
Hydric Soil Present?	Yes	No	X	
Wetland Hydrology Present?	Yes	No	X	

Arid West – Version 2.0

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 18	10YR	4.0 / 2		100			SILTY CLAY LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)           |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)       |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)   |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)   |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input type="checkbox"/> Depleted Matrix (F3)       |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)     |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)          |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |   |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- |   |
|---|
| <input type="checkbox"/> 1 cm Muck (A9) (LRR C)     |
| <input type="checkbox"/> 2 cm Muck (A10) (LRR B)    |
| <input type="checkbox"/> Reduced Vertic (F18)       |
| <input type="checkbox"/> Red Parent Material (TF2)  |
| <input type="checkbox"/> Other (Explain in Remarks) |

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No X

## Remarks:

Soil fails to indicate hydric conditions.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- |   |
|---|
| <input type="checkbox"/> Water Marks (B1) (Riverine)            |
| <input type="checkbox"/> Sediment Deposits (B2) (Riverine)      |
| <input type="checkbox"/> Drift Deposits (B3) (Riverine)         |
| <input type="checkbox"/> Drainage Patterns (B10)                |
| <input type="checkbox"/> Dry-Season Water Table (C2)            |
| <input type="checkbox"/> Crayfish Burrows (C8)                  |
| <input type="checkbox"/> Saturation Visible on Aerial Imag.(C9) |
| <input type="checkbox"/> Shallow Aquitard (D3)                  |
| <input type="checkbox"/> FAC-Neutral Test (D5)                  |

**Field Observations:**Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Water Table Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Saturation Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_

(includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

No hydrology indicators observed.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 6/11/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 10 Sampling Point: 17-N-201206111014  
 Investigators: Mike Perkins Trent Toler Section, Township, Range S 5 T 3 R 1  
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): Concave Slope(%) 10  
 Subregion (LRR): LRR D Lat: 41.021129278 Long: -111.975100409 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Warm Springs fine sandy loam, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes \_\_\_\_\_ No X  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology X, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> <b>Wetland ID:</b> _____
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes _____ No <u>X</u>	

Remarks:  
 Sample point in lowest spot of potential area but does not completely meet wetland criteria - no hydrology. Potential irrigation confoundment.

## VEGETATION— Use scientific names of plants.

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
<u>Festuca pratensis</u>	<u>20</u>	<u>Y</u>	<u>FACU</u>
<u>Trifolium repens</u>	<u>20</u>	<u>Y</u>	<u>FACU</u>
<u>Distichlis spicata</u>	<u>15</u>	<u>Y</u>	<u>FAC</u>
<u>Eleocharis palustris</u>	<u>15</u>	<u>Y</u>	<u>OBL</u>
<u>Phalaris angusta</u>	<u>15</u>	<u>Y</u>	<u>FACW</u>
<u>Schoenoplectus acutus</u>	<u>15</u>	<u>Y</u>	<u>OBL</u>
<u>Trifolium fragiferum</u>	<u>10</u>	<u>N</u>	<u>FACU</u>
<u>Carex pellita</u>	<u>2</u>	<u>N</u>	<u>OBL</u>
	<u>112</u>	<u>=Total Cover</u>	

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across all Strata: 6 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 66.7% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>32</u>	x 1 = <u>32</u>
FACW species <u>15</u>	x 2 = <u>30</u>
FAC species <u>15</u>	x 3 = <u>45</u>
FACU species <u>50</u>	x 4 = <u>200</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>112</u> (A)	<u>307</u> (B)

Prevalence Index = B/A= 2.74

### Hydrophytic Vegetation Indicators:

\_\_\_\_ Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
 \_\_\_\_ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 \_\_\_\_ Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No \_\_\_\_\_

% Bare Ground in Herb Stratum 20 % Cover of Biotic Crust \_\_\_\_\_

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation is hydrophytic.



**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)**

Depth (inches)	Matrix			Redox Features				Texture	Remarks
	Color (moist)		%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 4	10YR	3.0/ 1	100					CLAY LOAM	
4 to 9	10YR	3.0/ 1	93	10YR 6/2	5	C	M	SILTY CLAY LOAM	
4 to 9	/			Gley1 2.5/N	2	D	M		
9 to 16	10YR	4/ 1	50	5YR 6/2	50	C	M	SANDY LOAM	
16 to 20	10YR	5/ 2	50	10YR 6/2	50	C	M	SILT LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)                   |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)               |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)           |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)           |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input type="checkbox"/> Depleted Matrix (F3)               |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input checked="" type="checkbox"/> Redox Dark Surface (F6) |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7)         |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)             |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)                  |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |   |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- |   |
|---|
| <input type="checkbox"/> 1 cm Muck (A9) (LRR C)     |
| <input type="checkbox"/> 2 cm Muck (A10) (LRR B)    |
| <input type="checkbox"/> Reduced Vertic (F18)       |
| <input type="checkbox"/> Red Parent Material (TF2)  |
| <input type="checkbox"/> Other (Explain in Remarks) |

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes X No \_\_\_\_\_

## Remarks:

Soil meets criteria for hydric indicator F6.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- |  |
|--|
| <input type="checkbox"/> Water Marks (B1) (Riverine)             |
| <input type="checkbox"/> Sediment Deposits (B2) (Riverine)       |
| <input type="checkbox"/> Drift Deposits (B3) (Riverine)          |
| <input type="checkbox"/> Drainage Patterns (B10)                 |
| <input type="checkbox"/> Dry-Season Water Table (C2)             |
| <input type="checkbox"/> Crayfish Burrows (C8)                   |
| <input type="checkbox"/> Saturation Visible on Aerial Imag. (C9) |
| <input type="checkbox"/> Shallow Aquitard (D3)                   |
| <input checked="" type="checkbox"/> FAC-Neutral Test (D5)        |

**Field Observations:**

Surface Water Present?	Yes _____ No <u>X</u>	Depth (inches):	_____
Water Table Present?	Yes _____ No <u>X</u>	Depth (inches):	_____
Saturation Present?	Yes _____ No <u>X</u>	Depth (inches):	_____

(includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

Soil damper near surface (still not saturated); suggests irrigation confoundment.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 4/29/2013  
 Applicant/Owner: UDOT State: UT Map/Sheet: 10 Sampling Point: 17-N-201304291113  
 Investigators: Nate Nichols Mike Perkins Section, Township, Range S 25 T 4 R 2  
 Landform (hillslope, terrace, etc.): Depression Local Relief (concave, convex, none): None Slope(%) 0  
 Subregion (LRR): LRR D Lat: 41.020750 Long: -111.972747 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Logan silty clay loam, 0 to 3 percent slopes NWI Classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> <b>Wetland ID:</b> _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	

Remarks:  
 Non-wetland sampling point slightly higher than nearby wetland point. Adjacent field to east is higher in elevation with increasing fescue.

## VEGETATION— Use scientific names of plants.

**Absolute % Cover** **Dominant Species** **Indicator Status**

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

Agrostis stolonifera	50	Y	FACW
Trifolium fragiferum	50	Y	FACU
Festuca pratensis	2	N	FACU
Taraxacum officinale	1	N	FACU
	103	=Total Cover	

### Vine Stratum

## Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 1 (A)  
 Total Number of Dominant Species Across all Strata: 2 (B)  
 Percent of Dominant Species That are OBL, FACW, or FAC: 50.0% (A/B)

## Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	<u>0</u>	x 1 =	<u>0</u>
FACW species	<u>50</u>	x 2 =	<u>100</u>
FAC species	<u>0</u>	x 3 =	<u>0</u>
FACU species	<u>53</u>	x 4 =	<u>212</u>
UPL species	<u>0</u>	x 5 =	<u>0</u>
Column Totals:	<u>103</u> (A)		<u>312</u> (B)
Prevalence Index = B/A=		<u>3.03</u>	

## Hydrophytic Vegetation Indicators:

☐ Rapid Test for Hydrophytic Vegetation  
☐ Dominance Test > 50%  
☐ Prevalence Index ≤ 3.0  
☐ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
☐ Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes \_\_\_\_\_ No X

% Bare Ground in Herb Stratum \_\_\_\_\_ % Cover of Biotic Crust \_\_\_\_\_

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation does not qualify as hydrophytic.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 2	10YR	3 / 1	100				Organic material	Root Mat
2 to 18	10YR	2 / 1	100				SILTY CLAY LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)           |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)       |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)   |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)   |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input type="checkbox"/> Depleted Matrix (F3)       |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)     |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)          |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |   |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)
- ☐ 2 cm Muck (A10) (LRR B)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No X

## Remarks:

Profiles with dark soils does not contain any hydric soil indicators.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)
- ☐ Sediment Deposits (B2) (Riverine)
- ☐ Drift Deposits (B3) (Riverine)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_

Water Table Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_

Saturation Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_

(includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

Slightly moist at 9 inches, but not saturated until 18 inches. Hydrology noted in area on 6/7/2012 was likely from irrigation system not currently in use.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 6/13/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 10 Sampling Point: 17-N-201304291156  
 Investigators: Mike Perkins Nate Nichols Section, Township, Range S 5 T 3 R 1  
 Landform (hillslope, terrace, etc.): Depression Local Relief (concave, convex, none): None Slope(%) 0  
 Subregion (LRR): LRR D Lat: 41.020298 Long: -111.973006 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Logan silty clay loam, 0 to 3 percent slopes NWI Classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland?	Yes _____ No <u>X</u>
Hydric Soil Present?	Yes _____ No <u>X</u>		
Wetland Hydrology Present?	Yes _____ No <u>X</u>		Wetland ID: _____

Remarks:  
 Sampling point not a wetland. Lowest spot in field (besides delineated wetland polygon on north end) does not contain hydrophytic vegetation.

## VEGETATION— Use scientific names of plants.

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
Trifolium fragiferum	65	Y	FACU
Agrostis stolonifera	25	Y	FACW
Festuca pratensis	10	N	FACU
Poa pratensis	5	N	FAC
Taraxacum officinale	2	N	FACU
	107	=Total Cover	

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species  
That are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant  
Species Across all Strata: 2 (B)

Percent of Dominant Species  
That are OBL, FACW, or FAC: 50.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>25</u>	x 2 = <u>50</u>
FAC species <u>5</u>	x 3 = <u>15</u>
FACU species <u>77</u>	x 4 = <u>308</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>107</u> (A)	<u>373</u> (B)

Prevalence Index = B/A= 3.49

### Hydrophytic Vegetation Indicators:

\_\_\_\_\_ Rapid Test for Hydrophytic Vegetation  
 \_\_\_\_\_ Dominance Test > 50%  
 \_\_\_\_\_ Prevalence Index ≤ 3.0  
 \_\_\_\_\_ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 \_\_\_\_\_ Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic  
Vegetation Present? Yes \_\_\_\_\_ No X

% Bare Ground in Herb Stratum \_\_\_\_\_ % Cover of Biotic Crust \_\_\_\_\_

Remarks: (Include photo numbers here or on a separate sheet.)  
 Grazed pasture, but doesn't appear overgrazed. Failed both Dominance test and Prevalence index tests.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)           |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)       |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)   |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)   |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input type="checkbox"/> Depleted Matrix (F3)       |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)     |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)          |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |   |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- |   |
|---|
| <input type="checkbox"/> 1 cm Muck (A9) (LRR C)     |
| <input type="checkbox"/> 2 cm Muck (A10) (LRR B)    |
| <input type="checkbox"/> Reduced Vertic (F18)       |
| <input type="checkbox"/> Red Parent Material (TF2)  |
| <input type="checkbox"/> Other (Explain in Remarks) |

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No X**Remarks:**

Soils not evaluated since sampling point is does not contain hydrophytic vegetation.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- |   |
|---|
| <input type="checkbox"/> Water Marks (B1) (Riverine)            |
| <input type="checkbox"/> Sediment Deposits (B2) (Riverine)      |
| <input type="checkbox"/> Drift Deposits (B3) (Riverine)         |
| <input type="checkbox"/> Drainage Patterns (B10)                |
| <input type="checkbox"/> Dry-Season Water Table (C2)            |
| <input type="checkbox"/> Crayfish Burrows (C8)                  |
| <input type="checkbox"/> Saturation Visible on Aerial Imag.(C9) |
| <input type="checkbox"/> Shallow Aquitard (D3)                  |
| <input type="checkbox"/> FAC-Neutral Test (D5)                  |

**Field Observations:**Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Water Table Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Saturation Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_

(includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

**Remarks:**

Area dry at surface. No hydrology indicators observed.



# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 6/7/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 10 Sampling Point: 17-W-201206071044  
 Investigators: Ron Kass Paul Dawson Section, Township, Range S 5 T 3 R 1  
 Landform (hillslope, terrace, etc.): Basin Local Relief (concave, convex, none): Concave Slope(%) 3  
 Subregion (LRR): LRR D Lat: 41.0213053827 Long: -111.973592278 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Logan silty clay loam, 0 to 3 percent slopes NWI Classification: PEMC

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No        (If No, explain in Remarks)  
 Are Vegetation       , Soil       , Hydrology       , significantly disturbed? Are "Normal Circumstances" present? Yes X No         
 Are Vegetation       , Soil       , Hydrology       , naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No <u>      </u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No <u>      </u> Wetland ID: <u>17-W-19</u>
Hydric Soil Present? Yes <u>X</u> No <u>      </u>	
Wetland Hydrology Present? Yes <u>X</u> No <u>      </u>	

Remarks:  
 Emergent marsh wetland.

## VEGETATION— Use scientific names of plants.

<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
<u>20</u>	<u>Y</u>	<u>OBL</u>
<u>20</u>	<u>Y</u>	<u>OBL</u>
<u>15</u>	<u>Y</u>	<u>FACW</u>
<u>10</u>	<u>N</u>	<u>FAC</u>
<u>5</u>	<u>N</u>	<u>FAC</u>
<u>5</u>	<u>N</u>	<u>FACW</u>
<u>75</u>	<u>=Total Cover</u>	

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

<u>Schoenoplectus acutus</u>	<u>20</u>	<u>Y</u>	<u>OBL</u>
<u>Typha latifolia</u>	<u>20</u>	<u>Y</u>	<u>OBL</u>
<u>Juncus arcticus</u>	<u>15</u>	<u>Y</u>	<u>FACW</u>
<u>Rumex crispus</u>	<u>10</u>	<u>N</u>	<u>FAC</u>
<u>Plantago major</u>	<u>5</u>	<u>N</u>	<u>FAC</u>
<u>Rorippa curvipes</u>	<u>5</u>	<u>N</u>	<u>FACW</u>

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 3 (A)  
 Total Number of Dominant Species Across all Strata: 3 (B)  
 Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>40</u>	x 1 = <u>40</u>
FACW species <u>20</u>	x 2 = <u>40</u>
FAC species <u>15</u>	x 3 = <u>45</u>
FACU species <u>0</u>	x 4 = <u>0</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>75</u> (A)	<u>125</u> (B)

Prevalence Index = B/A = 1.67

### Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
 Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No       

% Bare Ground in Herb Stratum 25 % Cover of Biotic Crust

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation is hydrophytic.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix			Redox Features				Texture	Remarks
	Color (moist)		%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 14	10YR	2.0 / 1	100					SILTY CLAY LOAM	
14 to 18	10YR	5.0 / 1	100					SILTY CLAY LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- ☐ Histosol (A1)  
☐ Histic Epipedon (A2)  
☐ Black Histic (A3)  
☐ Hydrogen Sulfide (A4)  
☐ Stratified Layers (A5) LRR C  
☐ 1 cm Muck (A9) LRR F D  
☐ Depleted Below Dark Surface (A11)  
☒ Thick Dark Surface (A12)  
☐ Sandy Mucky Mineral (S1)  
☐ Sandy Gleyed Matrix (S4)

- ☐ Sandy Redox (S5)  
☐ Stripped Matrix (S6)  
☐ Loamy Mucky Mineral (F1)  
☐ Loamy Gleyed Matrix (F2)  
☐ Depleted Matrix (F3)  
☐ Redox Dark Surface (F6)  
☐ Depleted Dark Surface (F7)  
☐ Redox Depressions (F8)  
☐ Vernal Pools (F9)

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)  
☐ 2 cm Muck (A10) (LRR B)  
☐ Reduced Vertic (F18)  
☐ Red Parent Material (TF2)  
☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes X No \_\_\_\_\_

## Remarks:

Soil meets criteria for hydric indicator A12.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- ☒ Surface Water (A1)  
☒ High Water Table (A2)  
☒ Saturation (A3)  
☐ Water Marks (B1) (Nonriverine)  
☐ Sediment Deposits (B2) (Nonriverine)  
☐ Drift Deposits (B3) (Nonriverine)  
☐ Surface Soil Cracks (B6)  
☐ Inundation Visible on Aerial Imagery (B7)  
☐ Water-Stained Leaves (B9)  
☐ Salt Crust (B11)  
☐ Biotic Crust (B12)  
☐ Aquatic Fauna (B13)  
☐ Hydrogen Sulfide Odor (C1)  
☐ Oxidized Rhizospheres along Living Roots (C3)  
☐ Presence of Reduced Iron (C4)  
☐ Recent Iron Reduction in Tilled Soils (C6)  
☐ Thin Muck Surface (C7)  
☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)  
☐ Sediment Deposits (B2) (Riverine)  
☐ Drift Deposits (B3) (Riverine)  
☒ Drainage Patterns (B10)  
☐ Dry-Season Water Table (C2)  
☐ Crayfish Burrows (C8)  
☐ Saturation Visible on Aerial Imag.(C9)  
☐ Shallow Aquitard (D3)  
☒ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present? Yes X No \_\_\_\_\_ Depth (inches): 0-6  
 Water Table Present? Yes X No \_\_\_\_\_ Depth (inches): 12  
 Saturation Present? Yes X No \_\_\_\_\_ Depth (inches): 8  
 (includes capillary fringe)

**Wetland Hydrology Present?** Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

Surface water.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 6/7/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 10 Sampling Point: 17-W-201206071133  
 Investigators: Ron Kass Paul Dawson Section, Township, Range S 5 T 3 R 1  
 Landform (hillslope, terrace, etc.): Basin Local Relief (concave, convex, none): Concave Slope(%) 1  
 Subregion (LRR): LRR D Lat: 41.0207063308 Long: -111.972904265 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Logan silty clay loam, 0 to 3 percent slopes NWI Classification: PEMC  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No        (If No, explain in Remarks)  
 Are Vegetation       , Soil       , Hydrology       , significantly disturbed? Are "Normal Circumstances" present? Yes X No         
 Are Vegetation       , Soil       , Hydrology       , naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No <u>      </u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No <u>      </u> Wetland ID: <u>17-W-20</u>
Hydric Soil Present? Yes <u>X</u> No <u>      </u>	
Wetland Hydrology Present? Yes <u>X</u> No <u>      </u>	

Remarks:  
 Sampling point is a wetland.

## VEGETATION— Use scientific names of plants.

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
Agrostis stolonifera	40	Y	FACW
Eleocharis palustris	40	Y	OBL
Trifolium fragiferum	15	N	FACU
Ranunculus sceleratus	5	N	OBL
	100	=Total Cover	

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across all Strata: 2 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>45</u>	x 1 = <u>45</u>
FACW species <u>40</u>	x 2 = <u>80</u>
FAC species <u>0</u>	x 3 = <u>0</u>
FACU species <u>15</u>	x 4 = <u>60</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>100</u> (A)	<u>185</u> (B)

Prevalence Index = B/A = 1.85

### Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
       Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
       Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No       

% Bare Ground in Herb Stratum 3 % Cover of Biotic Crust

Remarks: (Include photo numbers here or on a separate sheet.)  
 Vegetation is hydrophytic.

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix			Redox Features				Texture	Remarks
	Color (moist)		%	Color (moist)		%	Type <sup>1</sup>		
0 to 15	10YR	2 / 1	90	10YR 5/1	5	C	M	SILTY CLAY LOAM	
0 to 15	/			Gley1 2.5/N	5	C	M	SILTY CLAY LOAM	
15 to 18	10YR	5.0/ 1	95	10YR 4/6	5	C	M	CLAY LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators:**

☐ Histosol (A1)

☐ Histic Epipedon (A2)

☐ Black Histic (A3)

☐ Hydrogen Sulfide (A4)

☐ Stratified Layers (A5) LRR C

☐ 1 cm Muck (A9) LRR F D

☐ Depleted Below Dark Surface (A11)

☐ Thick Dark Surface (A12)

☐ Sandy Mucky Mineral (S1)

☐ Sandy Gleyed Matrix (S4)

☐ Sandy Redox (S5)

☐ Stripped Matrix (S6)

☐ Loamy Mucky Mineral (F1)

☐ Loamy Gleyed Matrix (F2)

☐ Depleted Matrix (F3)

☒ Redox Dark Surface (F6)

☐ Depleted Dark Surface (F7)

☐ Redox Depressions (F8)

☐ Vernal Pools (F9)

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

☐ 1 cm Muck (A9) (LRR C)

☐ 2 cm Muck (A10) (LRR B)

☐ Reduced Vertic (F18)

☐ Red Parent Material (TF2)

☐ Other (Explain in Remarks)

☐ **Restrictive Layer (if observed):**

Type:

Depth (inches):

**Hydric Soil Present?** Yes ☒ No ☐

Remarks:

Soils appear to meet hydric indicator F6 because of manganese concentrations.

**Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.**

<sup>3</sup>

HYDROLOGY

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

☒ Surface Water (A1)

☒ High Water Table (A2)

☒ Saturation (A3)

☐ Water Marks (B1) (Nonriverine)

☐ Sediment Deposits (B2) (Nonriverine)

☐ Drift Deposits (B3) (Nonriverine)

☐ Surface Soil Cracks (B6)

☐ Inundation Visible on Aerial Imagery (B7)

☐ Water-Stained Leaves (B9)

☐ Salt Crust (B11)

☐ Biotic Crust (B12)

☐ Aquatic Fauna (B13)

☐ Hydrogen Sulfide Odor (C1)

☐ Oxidized Rhizospheres along Living Roots (C3)

☐ Presence of Reduced Iron (C4)

☐ Recent Iron Reduction in Tilled Soils (C6)

☐ Thin Muck Surface (C7)

☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

☐ Water Marks (B1) (Riverine)

☐ Sediment Deposits (B2) (Riverine)

☐ Drift Deposits (B3) (Riverine)

☒ Drainage Patterns (B10)

☐ Dry-Season Water Table (C2)

☐ Crayfish Burrows (C8)

☐ Saturation Visible on Aerial Imag.(C9)

☐ Shallow Aquitard (D3)

☒ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present? Yes ☒ No ☐ Depth (inches): 

0-1

Water Table Present? Yes ☒ No ☐ Depth (inches): 

0-10

Saturation Present? Yes ☒ No ☐ Depth (inches): 

0-6

(includes capillary fringe)

**Wetland Hydrology Present?** Yes ☒ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Wetland hydrology present, but appears to be from irrigation.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 6/7/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 10 Sampling Point: 17-W-201206071333  
 Investigators: Ron Kass Paul Dawson Section, Township, Range S 5 T 3 R 1  
 Landform (hillslope, terrace, etc.): Basin Local Relief (concave, convex, none): Concave Slope(%) 0  
 Subregion (LRR): LRR D Lat: 41.0202197937 Long: -111.973115574 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Logan silty clay loam, 0 to 3 percent slopes NWI Classification: PEMC  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No        (If No, explain in Remarks)  
 Are Vegetation       , Soil       , Hydrology X, significantly disturbed? Are "Normal Circumstances" present? Yes        No X  
 Are Vegetation       , Soil       , Hydrology       , naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No <u>      </u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No <u>      </u> Wetland ID: <u>17-CW-22</u>
Hydric Soil Present? Yes <u>X</u> No <u>      </u>	
Wetland Hydrology Present? Yes <u>X</u> No <u>      </u>	

Remarks:  
 Artificial impoundment for irrigation storage.

## VEGETATION— Use scientific names of plants.

	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
<u>Tree Stratum</u>			
<u>Shrub Stratum</u>			
<u>Herb Stratum</u> (Plot size: <u>30 Ft</u> )			
<u>Schoenoplectus pungens</u>	<u>95</u>	<u>Y</u>	<u>OBL</u>
	<u>95</u>	<u>=Total Cover</u>	
<u>Vine Stratum</u>			

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 1 (A)  
 Total Number of Dominant Species Across all Strata: 1 (B)  
 Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	<u>95</u>	x 1 =	<u>95</u>
FACW species	<u>0</u>	x 2 =	<u>0</u>
FAC species	<u>0</u>	x 3 =	<u>0</u>
FACU species	<u>0</u>	x 4 =	<u>0</u>
UPL species	<u>0</u>	x 5 =	<u>0</u>
Column Totals:	<u>95</u> (A)		<u>95</u> (B)
<i>Prevalence Index = B/A=</i> <u>1.00</u>			

### Hydrophytic Vegetation Indicators:

       Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
       Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
       Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No       

% Bare Ground in Herb Stratum        % Cover of Biotic Crust       

Remarks: (Include photo numbers here or on a separate sheet.)

Three square mostly dead.



**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)**

Depth (inches)	Matrix		Redox Features					Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>			
0 to 14	10YR	5.0 / 2	95	10YR 4/6	5	C	M	SILTY CLAY LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) LRR C
- ☐ 1 cm Muck (A9) LRR F D
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)

- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☒ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)
- ☐ 2 cm Muck (A10) (LRR B)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes X No \_\_\_\_\_Remarks:  
Soil indicator F3 present.**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- ☒ Surface Water (A1)
- ☒ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1) (Nonriverine)
- ☐ Sediment Deposits (B2) (Nonriverine)
- ☐ Drift Deposits (B3) (Nonriverine)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)
- ☐ Sediment Deposits (B2) (Riverine)
- ☐ Drift Deposits (B3) (Riverine)
- ☒ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Shallow Aquitard (D3)
- ☒ FAC-Neutral Test (D5)

**Field Observations:**Surface Water Present? Yes X No \_\_\_\_\_ Depth (inches): 6Water Table Present? Yes X No \_\_\_\_\_ Depth (inches): 0Saturation Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_

(includes capillary fringe)

**Wetland Hydrology Present?** Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:  
Wetland hydrology present.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 6/7/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 10 Sampling Point: 17-W-201206071352  
 Investigators: Ron Kass Paul Dawson Section, Township, Range S 5 T 3 R 1  
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): Concave Slope(%) 1  
 Subregion (LRR): LRR D Lat: 41.0193337964 Long: -111.974285307 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Logan silty clay loam, 0 to 3 percent slopes NWI Classification: PEMC  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No        (If No, explain in Remarks)  
 Are Vegetation       , Soil       , Hydrology       , significantly disturbed? Are "Normal Circumstances" present? Yes X No         
 Are Vegetation       , Soil       , Hydrology       , naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No <u>      </u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No <u>      </u> Wetland ID: <u>17-W-21</u>
Hydric Soil Present? Yes <u>X</u> No <u>      </u>	
Wetland Hydrology Present? Yes <u>X</u> No <u>      </u>	

Remarks:  
Bulrush emergent marsh.

## VEGETATION— Use scientific names of plants.

**Absolute % Cover** **Dominant Species** **Indicator Status**

Tree Stratum

Shrub Stratum

Herb Stratum (Plot size: 30 Ft )

Schoenoplectus pungens

90

Y

OBL

90

=Total Cover

Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across all Strata: 1 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	<u>90</u>	x 1 =	<u>90</u>
FACW species	<u>0</u>	x 2 =	<u>0</u>
FAC species	<u>0</u>	x 3 =	<u>0</u>
FACU species	<u>0</u>	x 4 =	<u>0</u>
UPL species	<u>0</u>	x 5 =	<u>0</u>
Column Totals:	<u>90</u> (A)		<u>90</u> (B)

Prevalence Index = B/A= 1.00

### Hydrophytic Vegetation Indicators:

       Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
       Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
       Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No       

% Bare Ground in Herb Stratum 10 % Cover of Biotic Crust

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation is hydrophytic.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)           |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)       |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)   |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)   |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input type="checkbox"/> Depleted Matrix (F3)       |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)     |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)          |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |   |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- |   |
|---|
| <input type="checkbox"/> 1 cm Muck (A9) (LRR C)     |
| <input type="checkbox"/> 2 cm Muck (A10) (LRR B)    |
| <input type="checkbox"/> Reduced Vertic (F18)       |
| <input type="checkbox"/> Red Parent Material (TF2)  |
| <input type="checkbox"/> Other (Explain in Remarks) |

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes X No \_\_\_\_\_**Remarks:**

No soil data collected, fully obligate vegetation and inundated hydrology condition, assumed hydric soil.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input checked="" type="checkbox"/> Surface Water (A1)             | <input type="checkbox"/> Salt Crust (B11)                              |
| <input checked="" type="checkbox"/> High Water Table (A2)          | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input checked="" type="checkbox"/> Saturation (A3)                | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- |   |
|---|
| <input type="checkbox"/> Water Marks (B1) (Riverine)            |
| <input type="checkbox"/> Sediment Deposits (B2) (Riverine)      |
| <input type="checkbox"/> Drift Deposits (B3) (Riverine)         |
| <input checked="" type="checkbox"/> Drainage Patterns (B10)     |
| <input type="checkbox"/> Dry-Season Water Table (C2)            |
| <input type="checkbox"/> Crayfish Burrows (C8)                  |
| <input type="checkbox"/> Saturation Visible on Aerial Imag.(C9) |
| <input type="checkbox"/> Shallow Aquitard (D3)                  |
| <input checked="" type="checkbox"/> FAC-Neutral Test (D5)       |

**Field Observations:**Surface Water Present? Yes X No \_\_\_\_\_ Depth (inches): 0-2Water Table Present? Yes X No \_\_\_\_\_ Depth (inches): 0Saturation Present? Yes X No \_\_\_\_\_ Depth (inches): 0

(includes capillary fringe)

**Wetland Hydrology Present?** Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

**Remarks:**

Wetland hydrology present.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 6/7/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 10 Sampling Point: 17-W-201206071406  
 Investigators: Ron Kass Paul Dawson Section, Township, Range S 5 T 3 R 1  
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): None Slope(%) 2  
 Subregion (LRR): LRR D Lat: 41.020177281 Long: -111.974669583 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Logan silty clay loam, 0 to 3 percent slopes NWI Classification: PEMC  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No        (If No, explain in Remarks)  
 Are Vegetation       , Soil       , Hydrology       , significantly disturbed? Are "Normal Circumstances" present? Yes X No         
 Are Vegetation       , Soil       , Hydrology       , naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No <u>      </u> Hydric Soil Present? Yes <u>X</u> No <u>      </u> Wetland Hydrology Present? Yes <u>X</u> No <u>      </u>	Is the Sampled Area within a Wetland? Yes <u>X</u> No <u>      </u> Wetland ID: <u>17-W-21</u>
---	---

Remarks:  
 Sampling point is a wetland.

## VEGETATION— Use scientific names of plants.

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
Eleocharis palustris	20	Y	OBL
Schoenoplectus acutus	20	Y	OBL
Phalaris arundinacea	15	Y	FACW
Festuca pratensis	10	N	FACU
Schoenoplectus pungens	10	N	OBL
Trifolium fragiferum	10	N	FACU
	85	=Total Cover	

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across all Strata: 3 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>50</u>	x 1 = <u>50</u>
FACW species <u>15</u>	x 2 = <u>30</u>
FAC species <u>0</u>	x 3 = <u>0</u>
FACU species <u>20</u>	x 4 = <u>80</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>85</u> (A)	<u>160</u> (B)

Prevalence Index = B/A = 1.88

### Hydrophytic Vegetation Indicators:

       Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
       Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
       Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No       

% Bare Ground in Herb Stratum 5 % Cover of Biotic Crust       

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation is hydrophytic.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix			Redox Features				Texture	Remarks
	Color (moist)		%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 8	10YR	2.0 / 1	100					SILTY CLAY LOAM	
8 to 18	10YR	5.0 / 1	95	10YR 5/6	5	C	M	SILTY CLAY LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- ☐ Histosol (A1)  
☐ Histic Epipedon (A2)  
☐ Black Histic (A3)  
☐ Hydrogen Sulfide (A4)  
☐ Stratified Layers (A5) LRR C  
☐ 1 cm Muck (A9) LRR F D  
☒ Depleted Below Dark Surface (A11)  
☐ Thick Dark Surface (A12)  
☐ Sandy Mucky Mineral (S1)  
☐ Sandy Gleyed Matrix (S4)

- ☐ Sandy Redox (S5)  
☐ Stripped Matrix (S6)  
☐ Loamy Mucky Mineral (F1)  
☐ Loamy Gleyed Matrix (F2)  
☐ Depleted Matrix (F3)  
☐ Redox Dark Surface (F6)  
☐ Depleted Dark Surface (F7)  
☐ Redox Depressions (F8)  
☐ Vernal Pools (F9)

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)  
☐ 2 cm Muck (A10) (LRR B)  
☐ Reduced Vertic (F18)  
☐ Red Parent Material (TF2)  
☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes X No \_\_\_\_\_

## Remarks:

Soil meets criteria for hydric indicator A11.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- ☒ Surface Water (A1)  
☒ High Water Table (A2)  
☒ Saturation (A3)  
☐ Water Marks (B1) (Nonriverine)  
☐ Sediment Deposits (B2) (Nonriverine)  
☐ Drift Deposits (B3) (Nonriverine)  
☐ Surface Soil Cracks (B6)  
☐ Inundation Visible on Aerial Imagery (B7)  
☐ Water-Stained Leaves (B9)  
☐ Salt Crust (B11)  
☐ Biotic Crust (B12)  
☐ Aquatic Fauna (B13)  
☐ Hydrogen Sulfide Odor (C1)  
☐ Oxidized Rhizospheres along Living Roots (C3)  
☐ Presence of Reduced Iron (C4)  
☐ Recent Iron Reduction in Tilled Soils (C6)  
☐ Thin Muck Surface (C7)  
☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)  
☐ Sediment Deposits (B2) (Riverine)  
☐ Drift Deposits (B3) (Riverine)  
☒ Drainage Patterns (B10)  
☐ Dry-Season Water Table (C2)  
☐ Crayfish Burrows (C8)  
☐ Saturation Visible on Aerial Imag.(C9)  
☐ Shallow Aquitard (D3)  
☒ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present? Yes X No \_\_\_\_\_ Depth (inches): 0-2  
 Water Table Present? Yes X No \_\_\_\_\_ Depth (inches): 0  
 Saturation Present? Yes X No \_\_\_\_\_ Depth (inches): 0  
 (includes capillary fringe)

**Wetland Hydrology Present?** Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

Wetland hydrology present.



# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 6/11/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 11 Sampling Point: 18-N-201206111156  
 Investigators: Mike Perkins Trent Toler Section, Township, Range S 5 T 3 R 1  
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): Concave Slope(%) 10  
 Subregion (LRR): LRR D Lat: 41.0171899456 Long: -111.971060292 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Warm Springs fine sandy loam, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> <b>Wetland ID:</b> _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	

Remarks:  
 Point representative of 'wettest' of potential area. Lacks hydrology & soils - not a wetland.

## VEGETATION— Use scientific names of plants.

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
Mentha arvensis	35	Y	FACW
Phragmites australis	25	Y	FACW
Eleocharis palustris	20	Y	OBL
Ambrosia artemisiifolia	5	N	FACU
Juncus arcticus	5	N	FACW
Schoenoplectus pungens	5	N	OBL
Dipsacus fullonum	3	N	FAC
	98	=Total Cover	

### Vine Stratum

## Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across all Strata: 3 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

## Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>25</u>	x 1 = <u>25</u>
FACW species <u>65</u>	x 2 = <u>130</u>
FAC species <u>3</u>	x 3 = <u>9</u>
FACU species <u>5</u>	x 4 = <u>20</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>98</u> (A)	<u>184</u> (B)

Prevalence Index = B/A= 1.88

## Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
 Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No \_\_\_\_\_

% Bare Ground in Herb Stratum 10 % Cover of Biotic Crust

Remarks: (Include photo numbers here or on a separate sheet.)

Phrag lacks vigor (dry).

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix			Redox Features				Texture	Remarks
	Color (moist)		%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 8	10YR	3.0/ 2	100					SILTY CLAY LOAM	
8 to 13	10YR	3.0/ 2	98	10YR 5/3	2	C	M	SILTY CLAY LOAM	
13 to 19	10YR	5.0/ 3	72	10YR 3/2	25	C	M	SILTY CLAY	
13 to 19	7.5YR	5.0/ 6	3					SILTY CLAY	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)           |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)       |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)   |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)   |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input type="checkbox"/> Depleted Matrix (F3)       |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)     |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)          |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |   |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)  
☐ 2 cm Muck (A10) (LRR B)  
☐ Reduced Vertic (F18)  
☐ Red Parent Material (TF2)  
☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No X

## Remarks:

13-19 7.5 5/6 are mottles in larger depletions. Still fails to meet hydric soils indicators.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)  
☐ Sediment Deposits (B2) (Riverine)  
☐ Drift Deposits (B3) (Riverine)  
☐ Drainage Patterns (B10)  
☐ Dry-Season Water Table (C2)  
☐ Crayfish Burrows (C8)  
☐ Saturation Visible on Aerial Imag. (C9)  
☐ Shallow Aquitard (D3)  
☒ FAC-Neutral Test (D5)

**Field Observations:**Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Water Table Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Saturation Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_

(includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

Flood irrigation occurring further south in this field &amp; might here still, or possilby altered by development to the east.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 6/11/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 11 Sampling Point: 18-N-201206111230  
 Investigators: Mike Perkins Trent Toler Section, Township, Range S 9 T 3 R 1  
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): Concave Slope(%) 1  
 Subregion (LRR): LRR D Lat: 41.0144083079 Long: -111.968850386 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Syracuse loamy fine sand, 0 to 2 percent slopes NWI Classification: \_\_\_\_\_  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> <b>Wetland ID:</b> _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	

Remarks:  
 Point in lowest/wettest spot w in study boundary - soils & hydrology don't qualify. Farther to the southwest, on other side of fence, vegetation and hydrology become stronger and indicate a wetland.

## VEGETATION— Use scientific names of plants.

**Absolute % Cover** **Dominant Species** **Indicator Status**

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

Schoenoplectus pungens	60	Y	OBL
Eleocharis palustris	40	Y	OBL
Typha latifolia	35	Y	OBL
Mentha arvensis	2	N	FACW
	137	=Total Cover	

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across all Strata: 3 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>135</u>	x 1 = <u>135</u>
FACW species <u>2</u>	x 2 = <u>4</u>
FAC species <u>0</u>	x 3 = <u>0</u>
FACU species <u>0</u>	x 4 = <u>0</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>137</u> (A)	<u>139</u> (B)

Prevalence Index = B/A = 1.01

### Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
 Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No \_\_\_\_\_

% Bare Ground in Herb Stratum 5 % Cover of Biotic Crust \_\_\_\_\_

Remarks: (Include photo numbers here or on a separate sheet.)  
 Vegetation is hydrophytic, but sparse with lower vigor. Vegetation becomes stronger to the southwest.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)**

Depth (inches)	Matrix			Redox Features				Texture	Remarks
	Color (moist)		%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 4	10YR	3.0/ 2	100					CLAY LOAM	
4 to 15	10YR	3.0/ 2	90	10YR 3/2	10	C	M	CLAY LOAM	
15 to 19	10YR	3.0/ 2	60	5YR 5/4	40	C	M	CLAY LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)           |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)       |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)   |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)   |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input type="checkbox"/> Depleted Matrix (F3)       |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)     |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)          |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |   |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)  
☐ 2 cm Muck (A10) (LRR B)  
☐ Reduced Vertic (F18)  
☐ Red Parent Material (TF2)  
☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No X

## Remarks:

Soil fails to indicate hydric conditions.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)  
☐ Sediment Deposits (B2) (Riverine)  
☐ Drift Deposits (B3) (Riverine)  
☐ Drainage Patterns (B10)  
☐ Dry-Season Water Table (C2)  
☐ Crayfish Burrows (C8)  
☐ Saturation Visible on Aerial Imag.(C9)  
☐ Shallow Aquitard (D3)  
☒ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present?	Yes _____ No <u>X</u>	Depth (inches): _____
Water Table Present?	Yes _____ No <u>X</u>	Depth (inches): _____
Saturation Present?	Yes _____ No <u>X</u>	Depth (inches): _____

(includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

Somewhat damp but no saturation; likely supported by irrigation.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 6/12/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 11 Sampling Point: 18-N-201206120958  
 Investigators: Trent Toler Mike Perkins Section, Township, Range S 9 T 3 R 1  
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): Concave Slope(%) 10  
 Subregion (LRR): LRR D Lat: 41.0158753211 Long: -111.967637876 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Airport silt loam, 0 to 2 percent slopes NWI Classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> <b>Wetland ID:</b> _____
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes _____ No <u>X</u>	

Remarks:  
 "Out" point may have been wetter prior to ditch reexcavation to west or housing development to east.

## VEGETATION— Use scientific names of plants.

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
Bromus japonicus	75	Y	UPL
Dipsacus fullonum	10	N	FAC
Hordeum jubatum	10	N	FAC
Bromus tectorum	5	N	UPL
Schoenoplectus acutus	5	N	OBL
	105	=Total Cover	

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 1 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 0.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>5</u>	x 1 = <u>5</u>
FACW species <u>0</u>	x 2 = <u>0</u>
FAC species <u>20</u>	x 3 = <u>60</u>
FACU species <u>0</u>	x 4 = <u>0</u>
UPL species <u>80</u>	x 5 = <u>400</u>
Column Totals: <u>105</u> (A)	<u>465</u> (B)

Prevalence Index = B/A = 4.43

### Hydrophytic Vegetation Indicators:

☐ Rapid Test for Hydrophytic Vegetation  
☐ Dominance Test > 50%  
☐ Prevalence Index ≤ 3.0  
☐ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
☐ Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes \_\_\_\_\_ No X

% Bare Ground in Herb Stratum 10 % Cover of Biotic Crust \_\_\_\_\_

Remarks: (Include photo numbers here or on a separate sheet.)

Alot of dead bulrush under live UPL weeds. Not hydrophytic.



**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)**

Depth (inches)	Matrix			Redox Features				Texture	Remarks
	Color (moist)		%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 2	10YR	2.0/ 1	100					SILTY CLAY LOAM	Organic root mat
2 to 9	10YR	3.0/ 1	90	10YR 6/2	10	C	M	SILTY CLAY LOAM	
9 to 17	10YR	4.0/ 1	100					SILTY CLAY	
17 to 20	GLE Y 1	6.0/ 10Y	60	5yr 7/2	40	C	M	CLAY	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |  |
|--|--|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)                      |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)                  |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)              |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)              |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input type="checkbox"/> Depleted Matrix (F3)                  |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)               |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input checked="" type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)                |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)                     |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |  |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- |   |
|---|
| <input type="checkbox"/> 1 cm Muck (A9) (LRR C)     |
| <input type="checkbox"/> 2 cm Muck (A10) (LRR B)    |
| <input type="checkbox"/> Reduced Vertic (F18)       |
| <input type="checkbox"/> Red Parent Material (TF2)  |
| <input type="checkbox"/> Other (Explain in Remarks) |

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes X No \_\_\_\_\_

## Remarks:

Soil meets criteria for hydric indicator F7.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- |   |
|---|
| <input type="checkbox"/> Water Marks (B1) (Riverine)            |
| <input type="checkbox"/> Sediment Deposits (B2) (Riverine)      |
| <input type="checkbox"/> Drift Deposits (B3) (Riverine)         |
| <input type="checkbox"/> Drainage Patterns (B10)                |
| <input type="checkbox"/> Dry-Season Water Table (C2)            |
| <input type="checkbox"/> Crayfish Burrows (C8)                  |
| <input type="checkbox"/> Saturation Visible on Aerial Imag.(C9) |
| <input type="checkbox"/> Shallow Aquitard (D3)                  |
| <input type="checkbox"/> FAC-Neutral Test (D5)                  |

**Field Observations:**Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Water Table Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Saturation Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_

(includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

Damp at 20"; may have been wetter prior to ditch reexcavation to west or housing development to East.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 6/12/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 11 Sampling Point: 18-W-201206120916  
 Investigators: Trent Toler Mike Perkins Section, Township, Range S 9 T 3 R 1  
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): Concave Slope(%) 2  
 Subregion (LRR): LRR D Lat: 41.0159460523 Long: -111.967734813 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Airport silt loam, 0 to 2 percent slopes NWI Classification: PEMA

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No        (If No, explain in Remarks)  
 Are Vegetation       , Soil       , Hydrology       , significantly disturbed? Are "Normal Circumstances" present? Yes X No         
 Are Vegetation       , Soil       , Hydrology       , naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No <u>      </u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No <u>      </u> Wetland ID: <u>18-W-92</u>
Hydric Soil Present? Yes <u>X</u> No <u>      </u>	
Wetland Hydrology Present? Yes <u>X</u> No <u>      </u>	

Remarks:  
 Point indicates lowest feature meets wetland criteria, but maybe drying out.

## VEGETATION— Use scientific names of plants.

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
Schoenoplectus acutus	85	Y	OBL
Dipsacus fullonum	10	N	FAC
Lepidium latifolium	10	N	FAC
Mentha arvensis	10	N	FACW
Hordeum jubatum	5	N	FAC
Lactuca serriola	5	N	FACU
Atriplex micrantha	2	N	UPL
	127	=Total Cover	

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 1 (A)  
 Total Number of Dominant Species Across all Strata: 1 (B)  
 Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>85</u>	x 1 = <u>85</u>
FACW species <u>10</u>	x 2 = <u>20</u>
FAC species <u>25</u>	x 3 = <u>75</u>
FACU species <u>5</u>	x 4 = <u>20</u>
UPL species <u>2</u>	x 5 = <u>10</u>
Column Totals: <u>127</u> (A)	<u>210</u> (B)
Prevalence Index = B/A= <u>1.65</u>	

### Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
 Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No       

% Bare Ground in Herb Stratum 5 % Cover of Biotic Crust

Remarks: (Include photo numbers here or on a separate sheet.)  
 FAC & FACU species encroaching OBL vegetation from edges.

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix			Redox Features				Texture	Remarks
	Color (moist)		%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 2	10YR	2.0/ 1	100						Organic root mat
2 to 16	10YR	4.0/ 1	95	7.5YR 3/4	5	C	PL	SILTY CLAY	
16 to 20	10YR	4.0/ 1	100					SILTY CLAY	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators:**

☐ Histosol (A1)☐ Histic Epipedon (A2)☐ Black Histic (A3)☐ Hydrogen Sulfide (A4)☐ Stratified Layers (A5) LRR C☐ 1 cm Muck (A9) LRR F D☐ Depleted Below Dark Surface (A11)☐ Thick Dark Surface (A12)☐ Sandy Mucky Mineral (S1)☐ Sandy Gleyed Matrix (S4)☐ Sandy Redox (S5)☐ Stripped Matrix (S6)☐ Loamy Mucky Mineral (F1)☐ Loamy Gleyed Matrix (F2)☒ Depleted Matrix (F3)☐ Redox Dark Surface (F6)☐ Depleted Dark Surface (F7)☐ Redox Depressions (F8)☐ Vernal Pools (F9)

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

☐ 1 cm Muck (A9) (LRR C)☐ 2 cm Muck (A10) (LRR B)☐ Reduced Vertic (F18)☐ Red Parent Material (TF2)☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: Depth (inches):

**Hydric Soil Present?** Yes ☒ No ☐

Remarks:

Soil meets criteria for hydric indicator F3.

HYDROLOGY

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

☐ Surface Water (A1)☐ High Water Table (A2)☒ Saturation (A3)☐ Water Marks (B1) (Nonriverine)☐ Sediment Deposits (B2) (Nonriverine)☐ Drift Deposits (B3) (Nonriverine)☐ Surface Soil Cracks (B6)☐ Inundation Visible on Aerial Imagery (B7)☐ Water-Stained Leaves (B9)☐ Salt Crust (B11)☐ Biotic Crust (B12)☐ Aquatic Fauna (B13)☐ Hydrogen Sulfide Odor (C1)☐ Oxidized Rhizospheres along Living Roots (C3)☐ Presence of Reduced Iron (C4)☐ Recent Iron Reduction in Tilled Soils (C6)☐ Thin Muck Surface (C7)☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

☐ Water Marks (B1) (Riverine)☐ Sediment Deposits (B2) (Riverine)☐ Drift Deposits (B3) (Riverine)☒ Drainage Patterns (B10)☐ Dry-Season Water Table (C2)☐ Crayfish Burrows (C8)☐ Saturation Visible on Aerial Imag.(C9)☐ Shallow Aquitard (D3)☒ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present? Yes ☐ No ☒ Depth (inches): 

--

Water Table Present? Yes ☒ No ☐ Depth (inches): 

16

Saturation Present? Yes ☒ No ☐ Depth (inches): 

12

(includes capillary fringe)

**Wetland Hydrology Present?** Yes ☒ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Ditch adjacent to west is apparent hydrology source, but appears recently excavated deeper.

US Army Corps of Engineers

HDR

Arid West – Version 2.0

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 6/12/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 11 Sampling Point: 18-W-201206121036  
 Investigators: Trent Toler Mike Perkins Section, Township, Range S 9 T 3 R 1  
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): Concave Slope(%) 10  
 Subregion (LRR): LRR D Lat: 41.0156695203 Long: -111.967211814 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Airport silt loam, 0 to 2 percent slopes NWI Classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology X, significantly disturbed? Are "Normal Circumstances" present? Yes \_\_\_\_\_ No X  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ <b>Wetland ID:</b> <u>18-W-92</u>
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks:  
 Area does NOT meet wetland criteria. Strong evidence of past inundated and anaerobic conditions, but recent development and fill dumping to the east may not be restricting hydrology to this site. Since this borderline marsh is still connected to bulrush marsh to the northwest, this area will be considered also a wetland.

## VEGETATION— Use scientific names of plants.

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
Typha latifolia	30	Y	OBL
Hordeum jubatum	20	Y	FAC
Lactuca serriola	10	N	FACU
Atriplex micrantha	5	N	FACU
Mentha arvensis	5	N	FACW
Atriplex micrantha	2	N	UPL
	72	=Total Cover	

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 2 (A)  
 Total Number of Dominant Species Across all Strata: 2 (B)  
 Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>30</u>	x 1 = <u>30</u>
FACW species <u>5</u>	x 2 = <u>10</u>
FAC species <u>20</u>	x 3 = <u>60</u>
FACU species <u>15</u>	x 4 = <u>60</u>
UPL species <u>2</u>	x 5 = <u>10</u>
Column Totals: <u>72</u> (A)	<u>170</u> (B)
Prevalence Index = B/A= <u>2.36</u>	

### Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
 Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No \_\_\_\_\_

% Bare Ground in Herb Stratum 40 % Cover of Biotic Crust \_\_\_\_\_

Remarks: (Include photo numbers here or on a separate sheet.)

A lot of dead cattail on otherwise bare ground.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)**

Depth (inches)	Matrix			Redox Features				Texture	Remarks
	Color (moist)		%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 3	10YR	2.0/ 2	100					CLAY LOAM	Organic root mat
3 to 15	10YR	3.0/ 1	95	10YR 6/2	3	D	M	SILTY CLAY LOAM	
15 to 20	10YR	3.0/ 1	30	5YR 6/2	70	D	M	SILTY CLAY LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)           |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)       |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)   |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)   |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input type="checkbox"/> Depleted Matrix (F3)       |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)     |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)          |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |   |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- |   |
|---|
| <input type="checkbox"/> 1 cm Muck (A9) (LRR C)     |
| <input type="checkbox"/> 2 cm Muck (A10) (LRR B)    |
| <input type="checkbox"/> Reduced Vertic (F18)       |
| <input type="checkbox"/> Red Parent Material (TF2)  |
| <input type="checkbox"/> Other (Explain in Remarks) |

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No X

## Remarks:

Soil fails to indicate hydric conditions but very close to F7, Depleted Dark Surface.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input checked="" type="checkbox"/> Water-Stained Leaves (B9)      | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- |   |
|---|
| <input type="checkbox"/> Water Marks (B1) (Riverine)            |
| <input type="checkbox"/> Sediment Deposits (B2) (Riverine)      |
| <input type="checkbox"/> Drift Deposits (B3) (Riverine)         |
| <input type="checkbox"/> Drainage Patterns (B10)                |
| <input type="checkbox"/> Dry-Season Water Table (C2)            |
| <input type="checkbox"/> Crayfish Burrows (C8)                  |
| <input type="checkbox"/> Saturation Visible on Aerial Imag.(C9) |
| <input type="checkbox"/> Shallow Aquitard (D3)                  |
| <input checked="" type="checkbox"/> FAC-Neutral Test (D5)       |

**Field Observations:**

Surface Water Present?	Yes _____ No <u>X</u>	Depth (inches):	_____
Water Table Present?	Yes _____ No <u>X</u>	Depth (inches):	_____
Saturation Present?	Yes _____ No <u>X</u>	Depth (inches):	_____

(includes capillary fringe)

**Wetland Hydrology Present?** Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

Hydrology likely reduced since ditch reexcavation or housing development, but water-stained leaves indicate some previous hydrology.



# WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: WDC MPAC-09212016-1-IN City/County: Davis County Sampling Date: 9/21/2016  
 Applicant/Owner: UDOT State: Utah Sampling Point: MPAC-09212016-1  
 Investigator(s): MP/AC Section, Township, Range: 5 3N 1W  
 Landform (hillslope, terrace, etc.): terrace/depression Local relief (concave, convex, none): concave Slope (%): 0%  
 Subregion (LRR): D Lat: 41.02355456 Long: -111.9765684 Datum: D WGS 1983  
 Soil Map Unit Name: Warm Springs fine sandy loam, 0 to 1 percent slopes NWI classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland?	Yes <input checked="" type="checkbox"/> No _____
Hydric Soil Present?	Yes <input checked="" type="checkbox"/> No _____		
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/> No _____		
Remarks:			

## VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)  Total Number of Dominant Species Across All Strata: <u>1</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
_____ = Total Cover				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B)  Prevalence Index = B/A = _____
<u>Sapling/Shrub Stratum</u> (Plot size: _____)	_____	_____	_____	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	<b>Hydrophytic Vegetation Indicators:</b> <input checked="" type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
5. _____	_____	_____	_____	
_____ = Total Cover				
<u>Herb Stratum</u> (Plot size: <u>5 ft. radius</u> )	_____	_____	_____	
1. <u>Eleocharis palustris</u>	<u>80%</u>	<u>Yes</u>	<u>OBL</u>	
2. <u>Schedonorus pratensis</u>	<u>25%</u>	_____	<u>FACU</u>	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
3. <u>Trifolium fragiferum</u>	<u>10%</u>	_____	<u>FAC</u>	
4. <u>Plantago lanceolata</u>	<u>5%</u>	_____	<u>FAC</u>	
5. <u>Echinochloa crus-galli</u>	<u>25%</u>	_____	<u>FACW</u>	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No _____
8. _____	_____	_____	_____	
_____ = Total Cover				<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No _____
<u>Woody Vine Stratum</u> (Plot size: _____)	_____	_____	_____	
1. _____	_____	_____	_____	<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No _____
2. _____	_____	_____	_____	
_____ = Total Cover				<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No _____
% Bare Ground in Herb Stratum _____	% Cover of Biotic Crust _____			
Remarks:				

## SOIL

Sampling Point: MPAC-0924

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-4	10YR 2/2	100%					SiClLoam	
4-10	10YR 3/2	80%	10YR 6/2	20%			SiClLoam	
10-17	7.5 YR 6/2	90%	10YR 4/2	10%			SiClLoam	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

- |   |  |
|---|--|
| <input type="checkbox"/> Histosol (A1)                                | <input type="checkbox"/> Sandy Redox (S5)                      |
| <input type="checkbox"/> Histic Epipedon (A2)                         | <input type="checkbox"/> Stripped Matrix (S6)                  |
| <input type="checkbox"/> Black Histic (A3)                            | <input type="checkbox"/> Loamy Mucky Mineral (F1)              |
| <input type="checkbox"/> Hydrogen Sulfide (A4)                        | <input type="checkbox"/> Loamy Gleyed Matrix (F2)              |
| <input type="checkbox"/> Stratified Layers (A5) ( <b>LRR C</b> )      | <input checked="" type="checkbox"/> Depleted Matrix (F3)       |
| <input type="checkbox"/> 1 cm Muck (A9) ( <b>LRR D</b> )              | <input type="checkbox"/> Redox Dark Surface (F6)               |
| <input checked="" type="checkbox"/> Depleted Below Dark Surface (A11) | <input checked="" type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12)                     | <input type="checkbox"/> Redox Depressions (F8)                |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)                     | <input type="checkbox"/> Vernal Pools (F9)                     |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)                     |  |

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- ☐ 1 cm Muck (A9) (**LRR C**)
- ☐ 2 cm Muck (A10) (**LRR B**)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes ☒ No ☐

Remarks:

## HYDROLOGY

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one required; check all that apply)

- |  |  |
|--|--|
| <input checked="" type="checkbox"/> Surface Water (A1)                 | <input type="checkbox"/> Salt Crust (B11)                              |
| <input checked="" type="checkbox"/> High Water Table (A2)              | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input checked="" type="checkbox"/> Saturation (A3)                    | <input type="checkbox"/> Aquatic Invertebrates (B13)                   |
| <input type="checkbox"/> Water Marks (B1) ( <b>Nonriverine</b> )       | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) ( <b>Nonriverine</b> ) | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) ( <b>Nonriverine</b> )    | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                      | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)     | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                     | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) (**Riverine**)
- ☐ Sediment Deposits (B2) (**Riverine**)
- ☐ Drift Deposits (B3) (**Riverine**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present? Yes ☐ No ☐ Depth (inches): \_\_\_\_\_

Water Table Present? Yes ☒ No ☐ Depth (inches): 7"

Saturation Present? Yes ☒ No ☐ Depth (inches): \_\_\_\_\_  
(includes capillary fringe)

**Wetland Hydrology Present?** Yes ☒ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Standing water in near vicinity. Currently being flood irrigated.

# WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: WDC MPAC-09212016-1-OUT City/County: Davis County Sampling Date: 9/21/2016  
 Applicant/Owner: UDOT State: Utah Sampling Point: MPAC-09212016-1-OUT  
 Investigator(s): MP/AC Section, Township, Range: 5 3N 1W  
 Landform (hillslope, terrace, etc.): terrace/depression Local relief (concave, convex, none): concave Slope (%): 0%  
 Subregion (LRR): D Lat: 41.02345855 Long: -111.976452 Datum: D WGS 1983  
 Soil Map Unit Name: Warm Springs fine sandy loam, 0 to 1 percent slopes NWI classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/>	
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	
Remarks:	

## VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)  Total Number of Dominant Species Across All Strata: <u>1</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
_____ = Total Cover				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species <u>1</u> x 2 = <u>2</u> FAC species <u>35</u> x 3 = <u>105</u> FACU species <u>71</u> x 4 = <u>284</u> UPL species <u>10</u> x 5 = <u>50</u> Column Totals: <u>117</u> (A) <u>441</u> (B)  Prevalence Index = B/A = <u>3.77</u>
<b>Sapling/Shrub Stratum (Plot size: _____)</b> 1. _____ 2. _____ 3. _____ 4. _____ 5. _____ _____ = Total Cover				
<b>Herb Stratum (Plot size: <u>5 ft. radius</u>)</b> 1. <u>Schedonorus pratensis</u> <u>70%</u> <u>Yes</u> <u>FACU</u> 2. <u>Medicago sativa</u> <u>10%</u> <u></u> <u>UPL</u> 3. <u>Plantago lanceolata</u> <u>15%</u> <u></u> <u>FAC</u> 4. <u>Chenopodium rubrum</u> <u>1%</u> <u></u> <u>FACW</u> 5. <u>Grindelia squarrosa</u> <u>1%</u> <u></u> <u>FACU</u> 6. <u>Trifolium fragiferum</u> <u>20%</u> <u></u> <u>FAC</u> 7. _____ 8. _____ <u>117%</u> = Total Cover				
<b>Woody Vine Stratum (Plot size: _____)</b> 1. _____ 2. _____ _____ = Total Cover				
% Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____				
Remarks:				<b>Hydrophytic Vegetation Indicators:</b> ___ Dominance Test is >50% ___ Prevalence Index is ≤3.0 <sup>1</sup> ___ Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
				<b>Hydrophytic Vegetation Present?</b> Yes _____ No <input checked="" type="checkbox"/>

## SOIL

Sampling Point: MPAC-0924

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-4	10YR 2/2	100%					SiClLoam	
4-10	10YR 2/2	95%	10YR 5/2	5%			SiClLoam	
10-12	10YR 6/3	40%					SiClLoam	
	10YR 3/2	70%						
12-15	10YR 6/3	80%					Clay	
	10YR 3/2	20%						

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

☐ Histosol (A1)  
☐ Histic Epipedon (A2)  
☐ Black Histic (A3)  
☐ Hydrogen Sulfide (A4)  
☐ Stratified Layers (A5) (**LRR C**)  
☐ 1 cm Muck (A9) (**LRR D**)  
☐ Depleted Below Dark Surface (A11)  
☐ Thick Dark Surface (A12)  
☐ Sandy Mucky Mineral (S1)  
☐ Sandy Gleyed Matrix (S4)

☐ Sandy Redox (S5)  
☐ Stripped Matrix (S6)  
☐ Loamy Mucky Mineral (F1)  
☐ Loamy Gleyed Matrix (F2)  
☐ Depleted Matrix (F3)  
☐ Redox Dark Surface (F6)  
☐ Depleted Dark Surface (F7)  
☐ Redox Depressions (F8)  
☐ Vernal Pools (F9)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

☐ 1 cm Muck (A9) (**LRR C**)  
☐ 2 cm Muck (A10) (**LRR B**)  
☐ Reduced Vertic (F18)  
☐ Red Parent Material (TF2)  
☐ Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No ☒

Remarks:

Doesn't fit any indicators.

## HYDROLOGY

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one required; check all that apply)

☐ Surface Water (A1)  
☐ High Water Table (A2)  
☒ Saturation (A3)  
☐ Water Marks (B1) (**Nonriverine**)  
☐ Sediment Deposits (B2) (**Nonriverine**)  
☐ Drift Deposits (B3) (**Nonriverine**)  
☐ Surface Soil Cracks (B6)  
☐ Inundation Visible on Aerial Imagery (B7)  
☐ Water-Stained Leaves (B9)

☐ Salt Crust (B11)  
☐ Biotic Crust (B12)  
☐ Aquatic Invertebrates (B13)  
☐ Hydrogen Sulfide Odor (C1)  
☐ Oxidized Rhizospheres along Living Roots (C3)  
☐ Presence of Reduced Iron (C4)  
☐ Recent Iron Reduction in Tilled Soils (C6)  
☐ Thin Muck Surface (C7)  
☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

☐ Water Marks (B1) (**Riverine**)  
☐ Sediment Deposits (B2) (**Riverine**)  
☐ Drift Deposits (B3) (**Riverine**)  
☐ Drainage Patterns (B10)  
☐ Dry-Season Water Table (C2)  
☐ Crayfish Burrows (C8)  
☐ Saturation Visible on Aerial Imagery (C9)  
☐ Shallow Aquitard (D3)  
☐ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present? Yes \_\_\_\_\_ No ☒ Depth (inches): \_\_\_\_\_

Water Table Present? Yes \_\_\_\_\_ No ☒ Depth (inches): \_\_\_\_\_

Saturation Present? Yes ☒ No \_\_\_\_\_ Depth (inches): 11"  
(includes capillary fringe)

**Wetland Hydrology Present?** Yes ☒ No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Site is flood irrigated.

# WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: WDC MPAC-09212016-2-IN City/County: Davis County Sampling Date: 9/21/2016  
 Applicant/Owner: UDOT State: Utah Sampling Point: MPAC-09212016-2  
 Investigator(s): MP/AC Section, Township, Range: 5 3N 1W  
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): none Slope (%): 1%  
 Subregion (LRR): D Lat: 41.02108592 Long: -111.9780539 Datum: D WGS 1983  
 Soil Map Unit Name: Warm Springs fine sandy loam, 0 to 1 percent slopes NWI classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil ☒, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____	
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	
Remarks: Soils in saline wet meadow are somewhat problematic (high pH).	

## VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)  Total Number of Dominant Species Across All Strata: <u>2</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
_____ = Total Cover				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B)  Prevalence Index = B/A = _____
<b>Sapling/Shrub Stratum</b> (Plot size: _____)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
_____ = Total Cover				<b>Hydrophytic Vegetation Indicators:</b> <input checked="" type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.  <b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No _____
<b>Herb Stratum</b> (Plot size: <u>5 ft. radius</u> )				
1. <u>Distichlis spicata</u>	<u>70%</u>	<u>Yes</u>	<u>FAC</u>	
2. <u>Suaeda occidentalis</u>	<u>25%</u>	<u>Yes</u>	<u>FACW</u>	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
_____ = Total Cover				
<b>Woody Vine Stratum</b> (Plot size: _____)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
_____ = Total Cover				
% Bare Ground in Herb Stratum _____	% Cover of Biotic Crust _____			
Remarks:				



## SOIL

Sampling Point: MPAC-0924

### Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-7	10YR 2/2	100%					ClLoam	
7-9	10YR 2/2	95%	10YR 2/1	5%			ClLoam	
9-15	10YR 3/2	30%	10YR 4/2	8%	D	M	ClLoam	
	10YR 2/1	60%	Gley 2.5/N	2%	C	M		

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

### Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) (**LRR C**)
- ☐ 1 cm Muck (A9) (**LRR D**)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)

- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☒ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

### Indicators for Problematic Hydric Soils<sup>3</sup>:

- ☐ 1 cm Muck (A9) (**LRR C**)
- ☐ 2 cm Muck (A10) (**LRR B**)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

### Restrictive Layer (if present):

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes ☒ No ☐

Remarks:

Some features may be masked due to salinity. Close to F6.

## HYDROLOGY

### Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☒ Surface Water (A1)
- ☐ High Water Table (A2)
- ☒ Saturation (A3)
- ☐ Water Marks (B1) (**Nonriverine**)
- ☐ Sediment Deposits (B2) (**Nonriverine**)
- ☐ Drift Deposits (B3) (**Nonriverine**)
- ☒ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)

- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) (**Riverine**)
- ☐ Sediment Deposits (B2) (**Riverine**)
- ☐ Drift Deposits (B3) (**Riverine**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

### Field Observations:

Surface Water Present? Yes ☒ No ☐ Depth (inches): \_\_\_\_\_

Water Table Present? Yes ☐ No ☒ Depth (inches): \_\_\_\_\_

Saturation Present? Yes ☒ No ☐ Depth (inches): 5"  
(includes capillary fringe)

Wetland Hydrology Present? Yes ☒ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Surface water present near pit. Water is from irrigation. Soil cracks in areas where irrigation water hasn't reached.

# WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: WDC MPAC-09212016-2-OUT City/County: Davis County Sampling Date: 9/21/2016  
 Applicant/Owner: UDOT State: Utah Sampling Point: MPAC-09212016-2-OUT  
 Investigator(s): MP/AC Section, Township, Range: 5 3N 1W  
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): none Slope (%): 1%  
 Subregion (LRR): D Lat: 41.02094846 Long: -111.9779506 Datum: D WGS 1983  
 Soil Map Unit Name: Warm Springs fine sandy loam, 0 to 1 percent slopes NWI classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____	
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	
Remarks: Sampling point upgradient from wetland. Vegetation isn't hydrophytic.	

## VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)  Total Number of Dominant Species Across All Strata: <u>2</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50%</u> (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
_____ = Total Cover				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species <u>1</u> x 2 = <u>2</u> FAC species <u>79</u> x 3 = <u>237</u> FACU species _____ x 4 = _____ UPL species <u>20</u> x 5 = <u>100</u> Column Totals: <u>100</u> (A) <u>339</u> (B)  Prevalence Index = B/A = <u>3.39</u>
<b>Sapling/Shrub Stratum</b> (Plot size: _____)	_____	_____	_____	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
_____ = Total Cover				<b>Hydrophytic Vegetation Indicators:</b> ___ Dominance Test is >50% ___ Prevalence Index is ≤3.0 <sup>1</sup> ___ Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.  <b>Hydrophytic Vegetation Present?</b> Yes _____ No <input checked="" type="checkbox"/>
<b>Herb Stratum</b> (Plot size: <u>5 ft. radius</u> )	_____	_____	_____	
1. <u>Distichlis spicata</u>	<u>78%</u>	<u>Yes</u>	<u>FAC</u>	
2. <u>Thinopyrum intermedium</u>	<u>20%</u>	<u>Yes</u>	<u>NL</u>	
3. <u>Suaeda occidentalis</u>	<u>1%</u>	_____	<u>FACW</u>	
4. <u>Hordeum jubatum</u>	<u>1%</u>	_____	<u>FAC</u>	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
_____ = Total Cover				
<b>Woody Vine Stratum</b> (Plot size: _____)	_____	_____	_____	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
_____ = Total Cover				
% Bare Ground in Herb Stratum _____	% Cover of Biotic Crust _____			
Remarks:				

## SOIL

Sampling Point: MPAC-0924

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-10	10YR 2/2	97%	10YR 6/2	3%			SiLoam	
10-18	10YR 6/2	100%						

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

- |   |  |
|---|--|
| <input type="checkbox"/> Histosol (A1)                                | <input type="checkbox"/> Sandy Redox (S5)                |
| <input type="checkbox"/> Histic Epipedon (A2)                         | <input type="checkbox"/> Stripped Matrix (S6)            |
| <input type="checkbox"/> Black Histic (A3)                            | <input type="checkbox"/> Loamy Mucky Mineral (F1)        |
| <input type="checkbox"/> Hydrogen Sulfide (A4)                        | <input type="checkbox"/> Loamy Gleyed Matrix (F2)        |
| <input type="checkbox"/> Stratified Layers (A5) ( <b>LRR C</b> )      | <input checked="" type="checkbox"/> Depleted Matrix (F3) |
| <input type="checkbox"/> 1 cm Muck (A9) ( <b>LRR D</b> )              | <input type="checkbox"/> Redox Dark Surface (F6)         |
| <input checked="" type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7)      |
| <input type="checkbox"/> Thick Dark Surface (A12)                     | <input type="checkbox"/> Redox Depressions (F8)          |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)                     | <input type="checkbox"/> Vernal Pools (F9)               |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)                     |  |

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- ☐ 1 cm Muck (A9) (**LRR C**)
- ☐ 2 cm Muck (A10) (**LRR B**)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes ☒ No ☐

Remarks:

## HYDROLOGY

**Wetland Hydrology Indicators:**

**Primary Indicators (minimum of one required; check all that apply)**

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                            | <input type="checkbox"/> Salt Crust (B11)                              |
| <input checked="" type="checkbox"/> High Water Table (A2)              | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input checked="" type="checkbox"/> Saturation (A3)                    | <input type="checkbox"/> Aquatic Invertebrates (B13)                   |
| <input type="checkbox"/> Water Marks (B1) ( <b>Nonriverine</b> )       | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) ( <b>Nonriverine</b> ) | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) ( <b>Nonriverine</b> )    | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                      | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)     | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                     | <input type="checkbox"/> Other (Explain in Remarks)                    |

**Secondary Indicators (2 or more required)**

- ☐ Water Marks (B1) (**Riverine**)
- ☐ Sediment Deposits (B2) (**Riverine**)
- ☐ Drift Deposits (B3) (**Riverine**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☒ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present? Yes ☐ No ☒ Depth (inches): \_\_\_\_\_

Water Table Present? Yes ☒ No ☐ Depth (inches): 12"

Saturation Present? Yes ☒ No ☐ Depth (inches): 11"  
(includes capillary fringe)

**Wetland Hydrology Present?** Yes ☒ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

# WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: WDC MPAC-09212016-3-IN City/County: Davis County Sampling Date: 9/21/2016  
 Applicant/Owner: UDOT State: Utah Sampling Point: MPAC-09212016-3-IN  
 Investigator(s): MP/AC Section, Township, Range: 5 3N 1W  
 Landform (hillslope, terrace, etc.): terrace/depression Local relief (concave, convex, none): concave Slope (%): 0%  
 Subregion (LRR): D Lat: 41.02109958 Long: -111.9755501 Datum: D WGS 1983  
 Soil Map Unit Name: Warm Springs fine sandy loam, 0 to 1 percent slopes NWI classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____	
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	
Remarks: Wetland that appears to be influenced by irrigation.	

## VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)  Total Number of Dominant Species Across All Strata: <u>3</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>6.67%</u> (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
_____ = Total Cover				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B)  Prevalence Index = B/A = _____
<b>Sapling/Shrub Stratum (Plot size: _____)</b> 1. _____ 2. _____ 3. _____ 4. _____ 5. _____ _____ = Total Cover				
<b>Herb Stratum (Plot size: <u>5 ft. radius</u>)</b> 1. <u>Eleocharis palustris</u> <u>40%</u> <u>Yes</u> <u>OBL</u> 2. <u>Trifolium fragiferum</u> <u>40%</u> <u>Yes</u> <u>FAC</u> 3. <u>Schedonorus pratensis</u> <u>40%</u> <u>Yes</u> <u>FACU</u> 4. _____ 5. _____ 6. _____ 7. _____ 8. _____ _____ = Total Cover				
<b>Woody Vine Stratum (Plot size: _____)</b> 1. _____ 2. _____ _____ = Total Cover				
% Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____				
Remarks:				<b>Hydrophytic Vegetation Indicators:</b> <input checked="" type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No _____				

# SOIL

Sampling Point: MPAC-0924

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-7	10YR 2/2	100%						organic matter
2-7	10YR 4/1	85%	2.5YR 6/1	10%			SaClLoam	
			Gley 2.5/N	5%				
7-12	2.5YR 6/1	100%					SaLoam	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) (**LRR C**)
- ☐ 1 cm Muck (A9) (**LRR D**)
- ☒ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)

- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☒ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- ☐ 1 cm Muck (A9) (**LRR C**)
- ☐ 2 cm Muck (A10) (**LRR B**)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes ☒ No ☐

Remarks:

# HYDROLOGY

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one required; check all that apply)

- ☒ Surface Water (A1)
- ☒ High Water Table (A2)
- ☒ Saturation (A3)
- ☐ Water Marks (B1) (**Nonriverine**)
- ☐ Sediment Deposits (B2) (**Nonriverine**)
- ☐ Drift Deposits (B3) (**Nonriverine**)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)

- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) (**Riverine**)
- ☐ Sediment Deposits (B2) (**Riverine**)
- ☐ Drift Deposits (B3) (**Riverine**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☒ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present? Yes ☒ No ☐ Depth (inches): 12"

Water Table Present? Yes ☒ No ☐ Depth (inches): 12"

Saturation Present? Yes ☒ No ☐ Depth (inches): 12"  
(includes capillary fringe)

**Wetland Hydrology Present?** Yes ☒ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:



# WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: WDC MPAC-09212016-3-OUT City/County: Davis County Sampling Date: 9/21/2016  
 Applicant/Owner: UDOT State: Utah Sampling Point: MPAC-09212016-3-OUT  
 Investigator(s): MP/AC Section, Township, Range: 5 3N 1W  
 Landform (hillslope, terrace, etc.): terrace/depression Local relief (concave, convex, none): concave Slope (%): 0%  
 Subregion (LRR): D Lat: 41.02091237 Long: -111.9757208 Datum: D WGS 1983  
 Soil Map Unit Name: Warm Springs fine sandy loam, 0 to 1 percent slopes NWI classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/>	
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	
Remarks:  Irrigated field area is not a wetland.	

## VEGETATION – Use scientific names of plants.

<b>Tree Stratum</b> (Plot size: _____) 1. _____ 2. _____ 3. _____ 4. _____ _____ = Total Cover <b>Sapling/Shrub Stratum</b> (Plot size: _____) 1. _____ 2. _____ 3. _____ 4. _____ 5. _____ _____ = Total Cover <b>Herb Stratum</b> (Plot size: <u>5 ft. radius</u> ) 1. <u>Schedonorus pratensis</u> <u>30%</u> <u>Yes</u> <u>FACU</u> 2. <u>Trifolium fragiferum</u> <u>100%</u> <u>Yes</u> <u>FAC</u> 3. _____ 4. _____ 5. _____ 6. _____ 7. _____ 8. _____ _____ = Total Cover <b>Woody Vine Stratum</b> (Plot size: _____) 1. _____ 2. _____ _____ = Total Cover % Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50%</u> (A/B) <b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species <u>100</u> x 3 = <u>300</u> FACU species <u>30</u> x 4 = <u>120</u> UPL species _____ x 5 = _____ Column Totals: <u>130</u> (A) <u>420</u> (B) Prevalence Index = B/A = <u>3.23</u> <b>Hydrophytic Vegetation Indicators:</b> ___ Dominance Test is >50% ___ Prevalence Index is ≤3.0 <sup>1</sup> ___ Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. <b>Hydrophytic Vegetation Present?</b> Yes _____ No <input checked="" type="checkbox"/>
Remarks:	

# SOIL

Sampling Point: MPAC-0924

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-4	10YR 2/2	100%						organic matter
4-10	10YR 2/1	99%	7.5YR 6/3	1%			Loam	
10-15	10YR 3/2	100%					Loam	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) (**LRR C**)
- ☐ 1 cm Muck (A9) (**LRR D**)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)

- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- ☐ 1 cm Muck (A9) (**LRR C**)
- ☐ 2 cm Muck (A10) (**LRR B**)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No ☒

Remarks:

# HYDROLOGY

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one required; check all that apply)

- ☒ Surface Water (A1)
- ☒ High Water Table (A2)
- ☒ Saturation (A3)
- ☐ Water Marks (B1) (**Nonriverine**)
- ☐ Sediment Deposits (B2) (**Nonriverine**)
- ☐ Drift Deposits (B3) (**Nonriverine**)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)

- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) (**Riverine**)
- ☐ Sediment Deposits (B2) (**Riverine**)
- ☐ Drift Deposits (B3) (**Riverine**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present? Yes ☒ No \_\_\_\_\_ Depth (inches): 1

Water Table Present? Yes ☒ No \_\_\_\_\_ Depth (inches): 0

Saturation Present? Yes ☒ No \_\_\_\_\_ Depth (inches): 0  
(includes capillary fringe)

**Wetland Hydrology Present?** Yes ☒ No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Pit full of water.

# WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: WDC MPAC-09212016-5-IN City/County: Davis County Sampling Date: 9/21/2016  
 Applicant/Owner: UDOT State: Utah Sampling Point: MPAC-09212016-5-IN  
 Investigator(s): MP/AC Section, Township, Range: 5 3N 1W  
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): concave Slope (%): 2%  
 Subregion (LRR): D Lat: 41.01719798 Long: -111.9747062 Datum: D WGS 1983  
 Soil Map Unit Name: Warm Springs fine sandy loam, 0 to 1 percent slopes NWI classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology ☒ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____	
Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	
Remarks: Mid-gradient portion of pasture; above emergent marsh and below uplands.	

## VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)  Total Number of Dominant Species Across All Strata: <u>3</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>66.67%</u> (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
_____ = Total Cover				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B)  Prevalence Index = B/A = _____
<b>Sapling/Shrub Stratum (Plot size: _____)</b> 1. _____ 2. _____ 3. _____ 4. _____ 5. _____ _____ = Total Cover				
<b>Herb Stratum (Plot size: <u>5 ft. radius</u>)</b> 1. <u>Schedonorus pratensis</u> <u>80%</u> <u>Yes</u> <u>FACU</u> 2. <u>Echinochloa crus-galli</u> <u>40%</u> <u>Yes</u> <u>FACW</u> 3. <u>Trifolium fragiferum</u> <u>80%</u> <u>Yes</u> <u>FAC</u> 4. _____ 5. _____ 6. _____ 7. _____ 8. _____ _____ = Total Cover				
<b>Woody Vine Stratum (Plot size: _____)</b> 1. _____ 2. _____ _____ = Total Cover				
% Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____				
Remarks:				<b>Hydrophytic Vegetation Indicators:</b> ___ Dominance Test is >50% ___ Prevalence Index is ≤3.0 <sup>1</sup> ___ Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No _____				

# SOIL

Sampling Point: MPAC-09

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-10	10YR 2/2	75%	10YR 7/1	25%	D	M	SiLoam	
10-20	10YR 2/2	85%	10YR 2/1	10%	D	M	SiLoam	
			2.5YR 3/6	5%	C	M		

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) (**LRR C**)
- ☐ 1 cm Muck (A9) (**LRR D**)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)

- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☒ Redox Dark Surface (F6)
- ☒ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- ☐ 1 cm Muck (A9) (**LRR C**)
- ☐ 2 cm Muck (A10) (**LRR B**)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes ☒ No ☐

Remarks:

# HYDROLOGY

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1) (**Nonriverine**)
- ☐ Sediment Deposits (B2) (**Nonriverine**)
- ☐ Drift Deposits (B3) (**Nonriverine**)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)

- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) (**Riverine**)
- ☐ Sediment Deposits (B2) (**Riverine**)
- ☐ Drift Deposits (B3) (**Riverine**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present? Yes ☐ No ☒ Depth (inches): \_\_\_\_\_

Water Table Present? Yes ☐ No ☒ Depth (inches): \_\_\_\_\_

Saturation Present? Yes ☐ No ☒ Depth (inches): \_\_\_\_\_  
(includes capillary fringe)

**Wetland Hydrology Present?** Yes ☐ No ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Soil moist but not saturated at 20". Dry time of year for seasonal wetlands.

# WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: WDC MPAC-09212016-5-OUT City/County: Davis County Sampling Date: 9/21/2016  
 Applicant/Owner: UDOT State: Utah Sampling Point: MPAC-09212016-5-OUT  
 Investigator(s): MP/AC Section, Township, Range: 5 3N 1W  
 Landform (hillslope, terrace, etc.): terrace/depression Local relief (concave, convex, none): concave Slope (%): 0%  
 Subregion (LRR): D Lat: 41.01735111 Long: -111.9748528 Datum: D WGS 1983  
 Soil Map Unit Name: Warm Springs fine sandy loam, 0 to 1 percent slopes NWI classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland?	Yes _____ No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/> No _____		
Wetland Hydrology Present?	Yes _____ No <input checked="" type="checkbox"/>		
Remarks:			

## VEGETATION – Use scientific names of plants.

<b>Tree Stratum</b> (Plot size: _____) 1. _____ 2. _____ 3. _____ 4. _____ _____ = Total Cover <b>Sapling/Shrub Stratum</b> (Plot size: _____) 1. _____ 2. _____ 3. _____ 4. _____ 5. _____ _____ = Total Cover <b>Herb Stratum</b> (Plot size: <u>5 ft. radius</u> ) 1. <u>Schedonorus pratensis</u> <u>80%</u> <u>Yes</u> <u>FACU</u> 2. <u>Trifolium fragiferum</u> <u>40%</u> <u>Yes</u> <u>FAC</u> 3. <u>Chenopodium rubrum</u> <u>2%</u> <u></u> <u>FACW</u> 4. _____ 5. _____ 6. _____ 7. _____ 8. _____ _____ = Total Cover <b>Woody Vine Stratum</b> (Plot size: _____) 1. _____ 2. _____ _____ = Total Cover % Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50%</u> (A/B) <b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species <u>2</u> x 2 = <u>4</u> FAC species <u>40</u> x 3 = <u>120</u> FACU species <u>80</u> x 4 = <u>320</u> UPL species _____ x 5 = _____ Column Totals: <u>122</u> (A) <u>444</u> (B) Prevalence Index = B/A = <u>3.64</u> <b>Hydrophytic Vegetation Indicators:</b> ___ Dominance Test is >50% ___ Prevalence Index is ≤3.0 <sup>1</sup> ___ Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. <b>Hydrophytic Vegetation Present?</b> Yes _____ No <input checked="" type="checkbox"/>
Remarks:	



# SOIL

Sampling Point: MPAC-0924

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-3	10YR 2/2	100%						organic matter
3-16	10YR 2/2	83%	10YR 6/2	5%	D	M	SiClLoam	
			10YR 4/6	2%	C	M		
			10YR 2/1	10%	C	M		Mn

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

☐ Histosol (A1)  
☐ Histic Epipedon (A2)  
☐ Black Histic (A3)  
☐ Hydrogen Sulfide (A4)  
☐ Stratified Layers (A5) (**LRR C**)  
☐ 1 cm Muck (A9) (**LRR D**)  
☐ Depleted Below Dark Surface (A11)  
☐ Thick Dark Surface (A12)  
☐ Sandy Mucky Mineral (S1)  
☐ Sandy Gleyed Matrix (S4)

☐ Sandy Redox (S5)  
☐ Stripped Matrix (S6)  
☐ Loamy Mucky Mineral (F1)  
☐ Loamy Gleyed Matrix (F2)  
☐ Depleted Matrix (F3)  
☒ Redox Dark Surface (F6)  
☐ Depleted Dark Surface (F7)  
☐ Redox Depressions (F8)  
☐ Vernal Pools (F9)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

☐ 1 cm Muck (A9) (**LRR C**)  
☐ 2 cm Muck (A10) (**LRR B**)  
☐ Reduced Vertic (F18)  
☐ Red Parent Material (TF2)  
☐ Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes ☒ No ☐

Remarks:

# HYDROLOGY

**Wetland Hydrology Indicators:**

**Primary Indicators (minimum of one required; check all that apply)**

☐ Surface Water (A1)  
☐ High Water Table (A2)  
☐ Saturation (A3)  
☐ Water Marks (B1) (**Nonriverine**)  
☐ Sediment Deposits (B2) (**Nonriverine**)  
☐ Drift Deposits (B3) (**Nonriverine**)  
☐ Surface Soil Cracks (B6)  
☐ Inundation Visible on Aerial Imagery (B7)  
☐ Water-Stained Leaves (B9)

☐ Salt Crust (B11)  
☐ Biotic Crust (B12)  
☐ Aquatic Invertebrates (B13)  
☐ Hydrogen Sulfide Odor (C1)  
☐ Oxidized Rhizospheres along Living Roots (C3)  
☐ Presence of Reduced Iron (C4)  
☐ Recent Iron Reduction in Tilled Soils (C6)  
☐ Thin Muck Surface (C7)  
☐ Other (Explain in Remarks)

**Secondary Indicators (2 or more required)**

☐ Water Marks (B1) (**Riverine**)  
☐ Sediment Deposits (B2) (**Riverine**)  
☐ Drift Deposits (B3) (**Riverine**)  
☐ Drainage Patterns (B10)  
☐ Dry-Season Water Table (C2)  
☐ Crayfish Burrows (C8)  
☐ Saturation Visible on Aerial Imagery (C9)  
☐ Shallow Aquitard (D3)  
☐ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present? Yes ☐ No ☐ Depth (inches): \_\_\_\_\_

Water Table Present? Yes ☐ No ☐ Depth (inches): \_\_\_\_\_

Saturation Present? Yes ☐ No ☐ Depth (inches): \_\_\_\_\_  
(includes capillary fringe)

**Wetland Hydrology Present?** Yes ☐ No ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No apparent hydrology.

# WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: WDC MPAC-09222016-1-IN City/County: Davis County Sampling Date: 9/22/2016  
 Applicant/Owner: UDOT State: Utah Sampling Point: MPAC-09222016-1  
 Investigator(s): MP/AC Section, Township, Range: 5 3N 1W  
 Landform (hillslope, terrace, etc.): terrace/depression Local relief (concave, convex, none): concave Slope (%): 0%  
 Subregion (LRR): D Lat: 41.01741897 Long: -111.9726991 Datum: D WGS 1983  
 Soil Map Unit Name: Warm Springs fine sandy loam, 0 to 1 percent slopes NWI classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland?	Yes <input checked="" type="checkbox"/> No _____
Hydric Soil Present?	Yes <input checked="" type="checkbox"/> No _____		
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/> No _____		
Remarks:			

## VEGETATION – Use scientific names of plants.

<b>Tree Stratum</b> (Plot size: _____) 1. _____ 2. _____ 3. _____ 4. _____ _____ = Total Cover <b>Sapling/Shrub Stratum</b> (Plot size: _____) 1. _____ 2. _____ 3. _____ 4. _____ 5. _____ _____ = Total Cover <b>Herb Stratum</b> (Plot size: <u>5 ft. radius</u> ) 1. <u>Phalaris arundinacea</u> <u>100%</u> <u>Yes</u> <u>FACW</u> 2. <u>Juncus arcticus</u> <u>70%</u> <u>Yes</u> <u>FACW</u> 3. <u>Persicaria maculosa</u> <u>1%</u> <u></u> <u>FACW</u> 4. <u>Purple leaf aster?</u> <u>1%</u> <u></u> <u>?</u> 5. _____ 6. _____ 7. _____ 8. _____ _____ = Total Cover <b>Woody Vine Stratum</b> (Plot size: _____) 1. _____ 2. _____ _____ = Total Cover % Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B) <b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____ <b>Hydrophytic Vegetation Indicators:</b> ___ Dominance Test is >50% ___ Prevalence Index is ≤3.0 <sup>1</sup> ___ Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. <b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No _____
Remarks:	

## SOIL

Sampling Point: MPAC-0924

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-2	10YR 2/2	100%						organic matter/roots
2-6	10YR 3/1	100%					SiClLoam	
6-10	10YR 4/1	60%	10YR 2/1	3%	C	M	SiClLoam	
	10YR 6/1	37%	10YR 3/4	1%	C	M		
10-18	10YR 5/1	20%	10YR 3/4	10%	C	M	SiClLoam	
	10YR 6/1	65%	10YR 2/1	5%	C	M		

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

- ☐ Histosol (A1)  
☐ Histic Epipedon (A2)  
☐ Black Histic (A3)  
☐ Hydrogen Sulfide (A4)  
☐ Stratified Layers (A5) (**LRR C**)  
☐ 1 cm Muck (A9) (**LRR D**)  
☒ Depleted Below Dark Surface (A11)  
☐ Thick Dark Surface (A12)  
☐ Sandy Mucky Mineral (S1)  
☐ Sandy Gleyed Matrix (S4)

- ☐ Sandy Redox (S5)  
☐ Stripped Matrix (S6)  
☐ Loamy Mucky Mineral (F1)  
☐ Loamy Gleyed Matrix (F2)  
☒ Depleted Matrix (F3)  
☐ Redox Dark Surface (F6)  
☐ Depleted Dark Surface (F7)  
☐ Redox Depressions (F8)  
☐ Vernal Pools (F9)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- ☐ 1 cm Muck (A9) (**LRR C**)  
☐ 2 cm Muck (A10) (**LRR B**)  
☐ Reduced Vertic (F18)  
☐ Red Parent Material (TF2)  
☐ Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes ☒ No ☐

Remarks:

Small gravels throughout profile.

## HYDROLOGY

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one required; check all that apply)

- ☒ Surface Water (A1)  
☒ High Water Table (A2)  
☒ Saturation (A3)  
☐ Water Marks (B1) (**Nonriverine**)  
☐ Sediment Deposits (B2) (**Nonriverine**)  
☐ Drift Deposits (B3) (**Nonriverine**)  
☐ Surface Soil Cracks (B6)  
☐ Inundation Visible on Aerial Imagery (B7)  
☐ Water-Stained Leaves (B9)

- ☐ Salt Crust (B11)  
☐ Biotic Crust (B12)  
☐ Aquatic Invertebrates (B13)  
☐ Hydrogen Sulfide Odor (C1)  
☐ Oxidized Rhizospheres along Living Roots (C3)  
☐ Presence of Reduced Iron (C4)  
☐ Recent Iron Reduction in Tilled Soils (C6)  
☐ Thin Muck Surface (C7)  
☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) (**Riverine**)  
☐ Sediment Deposits (B2) (**Riverine**)  
☐ Drift Deposits (B3) (**Riverine**)  
☐ Drainage Patterns (B10)  
☐ Dry-Season Water Table (C2)  
☐ Crayfish Burrows (C8)  
☐ Saturation Visible on Aerial Imagery (C9)  
☐ Shallow Aquitard (D3)  
☒ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present? Yes ☒ No ☐ Depth (inches): 1

Water Table Present? Yes ☒ No ☐ Depth (inches): 0

Saturation Present? Yes ☒ No ☐ Depth (inches): 0  
(includes capillary fringe)

**Wetland Hydrology Present?** Yes ☒ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

# WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: WDC MPAC-09222016-1-OUT City/County: Davis County Sampling Date: 9/22/2016  
 Applicant/Owner: UDOT State: Utah Sampling Point: MPAC-09222016-1-OUT  
 Investigator(s): MP/AC Section, Township, Range: 5 3N 1W  
 Landform (hillslope, terrace, etc.): terrace/depression Local relief (concave, convex, none): concave Slope (%): 0%  
 Subregion (LRR): D Lat: 41.01729789 Long: -111.9725696 Datum: D WGS 1983  
 Soil Map Unit Name: Warm Springs fine sandy loam, 0 to 1 percent slopes NWI classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland?	Yes _____ No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/> No _____		
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/> No _____		
Remarks:			

## VEGETATION – Use scientific names of plants.

<b>Tree Stratum</b> (Plot size: _____) 1. _____ 2. _____ 3. _____ 4. _____ _____ = Total Cover <b>Sapling/Shrub Stratum</b> (Plot size: _____) 1. _____ 2. _____ 3. _____ 4. _____ 5. _____ _____ = Total Cover <b>Herb Stratum</b> (Plot size: <u>5 ft. radius</u> ) 1. <u>Schedonorus pratensis</u> <u>130%</u> <u>Yes</u> <u>FACU</u> 2. <u>Trifolium fragiferum</u> <u>20%</u> <u></u> <u>FAC</u> 3. _____ 4. _____ 5. _____ 6. _____ 7. _____ 8. _____ _____ = Total Cover <b>Woody Vine Stratum</b> (Plot size: _____) 1. _____ 2. _____ _____ = Total Cover % Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B) <b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species <u>20</u> x 3 = <u>60</u> FACU species <u>130</u> x 4 = <u>520</u> UPL species _____ x 5 = _____ Column Totals: <u>150</u> (A) <u>580</u> (B) Prevalence Index = B/A = <u>3.87</u> <b>Hydrophytic Vegetation Indicators:</b> ___ Dominance Test is >50% ___ Prevalence Index is ≤3.0 <sup>1</sup> ___ Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. <b>Hydrophytic Vegetation Present?</b> Yes _____ No <input checked="" type="checkbox"/>
Remarks:	

# SOIL

Sampling Point: MPAC-0924

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-2	10YR 2/2	100%						organic matter/roots
2-10	10YR 3/1	65%	10YR 6/2	1%			ClLoam	
	10YR 6/1	29%	10YR 2/1	5%				Mn
10-16	10YR 3/1	97%	10YR 6/4	3%			SiLoam	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) (**LRR C**)
- ☐ 1 cm Muck (A9) (**LRR D**)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)

- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☒ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☒ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- ☐ 1 cm Muck (A9) (**LRR C**)
- ☐ 2 cm Muck (A10) (**LRR B**)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present? Yes ☒ No ☐**

Remarks:

# HYDROLOGY

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☒ Saturation (A3)
- ☐ Water Marks (B1) (**Nonriverine**)
- ☐ Sediment Deposits (B2) (**Nonriverine**)
- ☐ Drift Deposits (B3) (**Nonriverine**)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)

- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) (**Riverine**)
- ☐ Sediment Deposits (B2) (**Riverine**)
- ☐ Drift Deposits (B3) (**Riverine**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present? Yes ☐ No ☐ Depth (inches): \_\_\_\_\_

Water Table Present? Yes ☒ No ☐ Depth (inches): 13

Saturation Present? Yes ☒ No ☐ Depth (inches): 6  
(includes capillary fringe)

**Wetland Hydrology Present? Yes ☒ No ☐**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:



# WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: WDC MPAC-09222016-2-IN City/County: Davis County Sampling Date: 9/22/2016  
 Applicant/Owner: UDOT State: Utah Sampling Point: MPAC-09222016-2-IN  
 Investigator(s): MP/AC Section, Township, Range: 8 3N 1W  
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): none Slope (%): 0%  
 Subregion (LRR): D Lat: 41.01510393 Long: -111.9718331 Datum: D WGS 1983  
 Soil Map Unit Name: Warm Springs fine sandy loam, 0 to 1 percent slopes NWI classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland?	Yes <input checked="" type="checkbox"/> No _____
Hydric Soil Present?	Yes <input checked="" type="checkbox"/> No _____		
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/> No _____		
Remarks:			

## VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)  Total Number of Dominant Species Across All Strata: <u>3</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>66.67%</u> (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
_____ = Total Cover				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B)  Prevalence Index = B/A = _____
<b>Sapling/Shrub Stratum</b> (Plot size: _____)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
_____ = Total Cover				
<b>Herb Stratum</b> (Plot size: <u>5 ft. radius</u> )				<b>Hydrophytic Vegetation Indicators:</b> <input checked="" type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. <u>Schedonorus pratensis</u>	<u>70%</u>	<u>Yes</u>	<u>FACU</u>	
2. <u>Trifolium fragiferum</u>	<u>50%</u>	<u>Yes</u>	<u>FAC</u>	
3. <u>Poa pratensis</u>	<u>70%</u>	<u>Yes</u>	<u>FAC</u>	
4. <u>Triglochin maritima</u>	<u>1%</u>		<u>OBL</u>	
5. <u>Melilotus officinalis</u>	<u>2%</u>		<u>FACU</u>	
6. <u>Plantago lanceolata</u>	<u>1%</u>		<u>FAC</u>	
7. <u>Cichorium intybus</u>	<u>1%</u>		<u>FACU</u>	
8. <u>Thinopyrum intermedium</u>	<u>2%</u>		<u>NL</u>	
<u>197%</u> = Total Cover				
<b>Woody Vine Stratum</b> (Plot size: _____)				<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No _____
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
_____ = Total Cover				
% Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____				
Remarks:				

# SOIL

Sampling Point: MPAC-09

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-4	10YR 2/2	100%						organic matter/roots
4-14	10YR 3/2	70%	10YR 6/2	20%	D	M		
			10YR 4/6	10%	C	M		

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) (**LRR C**)
- ☐ 1 cm Muck (A9) (**LRR D**)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)

- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☒ Redox Dark Surface (F6)
- ☒ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- ☐ 1 cm Muck (A9) (**LRR C**)
- ☐ 2 cm Muck (A10) (**LRR B**)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes ☒ No ☐

Remarks:

Extends beyond upper 12 inches.

# HYDROLOGY

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☒ Saturation (A3)
- ☐ Water Marks (B1) (**Nonriverine**)
- ☐ Sediment Deposits (B2) (**Nonriverine**)
- ☐ Drift Deposits (B3) (**Nonriverine**)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)

- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) (**Riverine**)
- ☐ Sediment Deposits (B2) (**Riverine**)
- ☐ Drift Deposits (B3) (**Riverine**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present? Yes ☐ No ☒ Depth (inches): 0

Water Table Present? Yes ☒ No ☐ Depth (inches): 14"

Saturation Present? Yes ☒ No ☐ Depth (inches): 0  
(includes capillary fringe)

**Wetland Hydrology Present?** Yes ☒ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

# WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: WDC MPAC-09222016-2-OUT City/County: Davis County Sampling Date: 9/22/2016  
 Applicant/Owner: UDOT State: Utah Sampling Point: MPAC-09222016-2-OUT  
 Investigator(s): MP/AC Section, Township, Range: 8 3N 1W  
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): none Slope (%): 0%  
 Subregion (LRR): D Lat: 41.0149743 Long: -111.9717396 Datum: D WGS 1983  
 Soil Map Unit Name: Warm Springs fine sandy loam, 0 to 1 percent slopes NWI classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland?	Yes _____ No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/> No _____		
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/> No _____		
Remarks:			

## VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)  Total Number of Dominant Species Across All Strata: <u>1</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
_____ = Total Cover				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species <u>20</u> x 3 = <u>60</u> FACU species <u>172</u> x 4 = <u>688</u> UPL species <u>20</u> x 5 = <u>100</u> Column Totals: <u>212</u> (A) <u>848</u> (B)  Prevalence Index = B/A = <u>4.0</u>
<b>Sapling/Shrub Stratum</b> (Plot size: _____)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
_____ = Total Cover				<b>Hydrophytic Vegetation Indicators:</b> ___ Dominance Test is >50% ___ Prevalence Index is ≤3.0 <sup>1</sup> ___ Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.  <b>Hydrophytic Vegetation Present?</b> Yes _____ No <input checked="" type="checkbox"/>
<b>Herb Stratum</b> (Plot size: <u>5 ft. radius</u> )				
1. <u>Schedonorus pratensis</u>	<u>150%</u>	<u>Yes</u>	<u>FACU</u>	
2. <u>Poa pratensis</u>	<u>20%</u>		<u>FAC</u>	
3. <u>Melilotus officinalis</u>	<u>20%</u>		<u>FACU</u>	
4. <u>Thinopyrum intermedium</u>	<u>20%</u>		<u>NL</u>	
5. <u>Cichorium intybus</u>	<u>2%</u>		<u>FACU</u>	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
_____ = Total Cover				
<b>Woody Vine Stratum</b> (Plot size: _____)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
_____ = Total Cover				
% Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____				
Remarks:				

# SOIL

Sampling Point: MPAC-0924

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-3.5	10YR 2/2	100%						organic matter/roots
3.5-11	10YR 3/2	85%	10YR 6/3	10%	D	M	SiClay	
			10YR 4/6	5%	C	PL/M		
11-14	10YR 6/3	70%	10YR 4/6	10%	C	PL/M	SiClay	
	10YR 3/1	20%						

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) (**LRR C**)
- ☐ 1 cm Muck (A9) (**LRR D**)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)

- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☒ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- ☐ 1 cm Muck (A9) (**LRR C**)
- ☐ 2 cm Muck (A10) (**LRR B**)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes ☒ No ☐

Remarks:

# HYDROLOGY

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☒ Saturation (A3)
- ☐ Water Marks (B1) (**Nonriverine**)
- ☐ Sediment Deposits (B2) (**Nonriverine**)
- ☐ Drift Deposits (B3) (**Nonriverine**)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)

- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) (**Riverine**)
- ☐ Sediment Deposits (B2) (**Riverine**)
- ☐ Drift Deposits (B3) (**Riverine**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present? Yes ☐ No ☒ Depth (inches): 0

Water Table Present? Yes ☒ No ☐ Depth (inches): 14

Saturation Present? Yes ☒ No ☐ Depth (inches): 8  
(includes capillary fringe)

**Wetland Hydrology Present?** Yes ☒ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 6/7/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 9 Sampling Point: 17-N-201206070931  
 Investigators: Ron Kass Paul Dawson Section, Township, Range S 5 T 3 R 1  
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): Concave Slope(%) 1  
 Subregion (LRR): LRR D Lat: 41.0261826251 Long: -111.97886755 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Airport silt loam, 0 to 2 percent slopes NWI Classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> <b>Wetland ID:</b> _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	

Remarks:  
 Upland pasture with marginal vegetation. No hydrology, no soil, not a wetland

## VEGETATION— Use scientific names of plants.

**Absolute % Cover** **Dominant Species** **Indicator Status**

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

Carex praegracilis	25	Y	FACW
Juncus arcticus	15	Y	FACW
Festuca pratensis	10	N	FACU
Distichlis spicata	5	N	FAC
Grindelia squarrosa	5	N	FACU
Lepidium latifolium	2	N	FAC
	62	=Total Cover	

### Vine Stratum

## Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across all Strata: 2 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

## Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>40</u>	x 2 = <u>80</u>
FAC species <u>7</u>	x 3 = <u>21</u>
FACU species <u>15</u>	x 4 = <u>60</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>62</u> (A)	<u>161</u> (B)

Prevalence Index = B/A = 2.60

## Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
 Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No \_\_\_\_\_

% Bare Ground in Herb Stratum \_\_\_\_\_ % Cover of Biotic Crust \_\_\_\_\_

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation is hydrophytic.



**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 18	10YR	4.0 / 2		100			SILTY CLAY LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)           |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)       |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)   |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)   |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input type="checkbox"/> Depleted Matrix (F3)       |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)     |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)          |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |   |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- |   |
|---|
| <input type="checkbox"/> 1 cm Muck (A9) (LRR C)     |
| <input type="checkbox"/> 2 cm Muck (A10) (LRR B)    |
| <input type="checkbox"/> Reduced Vertic (F18)       |
| <input type="checkbox"/> Red Parent Material (TF2)  |
| <input type="checkbox"/> Other (Explain in Remarks) |

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No X

## Remarks:

Soil fails to indicate hydric conditions.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- |   |
|---|
| <input type="checkbox"/> Water Marks (B1) (Riverine)            |
| <input type="checkbox"/> Sediment Deposits (B2) (Riverine)      |
| <input type="checkbox"/> Drift Deposits (B3) (Riverine)         |
| <input type="checkbox"/> Drainage Patterns (B10)                |
| <input type="checkbox"/> Dry-Season Water Table (C2)            |
| <input type="checkbox"/> Crayfish Burrows (C8)                  |
| <input type="checkbox"/> Saturation Visible on Aerial Imag.(C9) |
| <input type="checkbox"/> Shallow Aquitard (D3)                  |
| <input checked="" type="checkbox"/> FAC-Neutral Test (D5)       |

**Field Observations:**Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Water Table Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Saturation Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_

(includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

Dry area lacks sufficient evidence for wetland hydrology.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 6/6/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 9 Sampling Point: 16-N-201206061047  
 Investigators: Ron Kass Paul Dawson Section, Township, Range S 31 T 4 R 1  
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): None Slope(%) 1  
 Subregion (LRR): LRR D Lat: 41.0335708374 Long: -111.995135627 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Warm Springs fine sandy loam, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u>  <b>Wetland ID:</b> _____
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes _____ No <u>X</u>	

Remarks:  
Sampling point not a wetland.

## VEGETATION— Use scientific names of plants.

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
Trifolium repens	30	Y	FACU
Festuca pratensis	20	Y	FACU
Eleocharis palustris	10	N	OBL
Plantago major	3	N	FAC
	63	=Total Cover	

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 2 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 0.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>10</u>	x 1 = <u>10</u>
FACW species <u>0</u>	x 2 = <u>0</u>
FAC species <u>3</u>	x 3 = <u>9</u>
FACU species <u>50</u>	x 4 = <u>200</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>63</u> (A)	<u>219</u> (B)

Prevalence Index = B/A= 3.48

### Hydrophytic Vegetation Indicators:

☐ Rapid Test for Hydrophytic Vegetation  
☐ Dominance Test > 50%  
☐ Prevalence Index ≤ 3.0  
☐ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
☐ Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes \_\_\_\_\_ No X

% Bare Ground in Herb Stratum 30 % Cover of Biotic Crust

Remarks: (Include photo numbers here or on a separate sheet.)  
Vegetation is not hydrophytic.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)**

Depth (inches)	Matrix			Redox Features				Texture	Remarks
	Color (moist)		%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 12	10YR	3.0 / 1	100					SILTY CLAY LOAM	
12 to 18	10YR	4.0 / 2	80	10YR 4/6	10	C	M	SILTY CLAY LOAM	also: Gley1 2.5/N 10% C M

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- ☐ Histosol (A1)  
☐ Histic Epipedon (A2)  
☐ Black Histic (A3)  
☐ Hydrogen Sulfide (A4)  
☐ Stratified Layers (A5) LRR C  
☐ 1 cm Muck (A9) LRR F D  
☒ Depleted Below Dark Surface (A11)  
☐ Thick Dark Surface (A12)  
☐ Sandy Mucky Mineral (S1)  
☐ Sandy Gleyed Matrix (S4)

- ☐ Sandy Redox (S5)  
☐ Stripped Matrix (S6)  
☐ Loamy Mucky Mineral (F1)  
☐ Loamy Gleyed Matrix (F2)  
☐ Depleted Matrix (F3)  
☐ Redox Dark Surface (F6)  
☐ Depleted Dark Surface (F7)  
☐ Redox Depressions (F8)  
☐ Vernal Pools (F9)

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)  
☐ 2 cm Muck (A10) (LRR B)  
☐ Reduced Vertic (F18)  
☐ Red Parent Material (TF2)  
☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes X No \_\_\_\_\_**Remarks:**

Soil meets criteria for hydric indicator A11.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)  
☐ High Water Table (A2)  
☐ Saturation (A3)  
☐ Water Marks (B1) (Nonriverine)  
☐ Sediment Deposits (B2) (Nonriverine)  
☐ Drift Deposits (B3) (Nonriverine)  
☐ Surface Soil Cracks (B6)  
☐ Inundation Visible on Aerial Imagery (B7)  
☐ Water-Stained Leaves (B9)  
☐ Salt Crust (B11)  
☐ Biotic Crust (B12)  
☐ Aquatic Fauna (B13)  
☐ Hydrogen Sulfide Odor (C1)  
☐ Oxidized Rhizospheres along Living Roots (C3)  
☐ Presence of Reduced Iron (C4)  
☐ Recent Iron Reduction in Tilled Soils (C6)  
☐ Thin Muck Surface (C7)  
☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)  
☐ Sediment Deposits (B2) (Riverine)  
☐ Drift Deposits (B3) (Riverine)  
☐ Drainage Patterns (B10)  
☐ Dry-Season Water Table (C2)  
☐ Crayfish Burrows (C8)  
☐ Saturation Visible on Aerial Imag.(C9)  
☐ Shallow Aquitard (D3)  
☐ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present? Yes X No \_\_\_\_\_ Depth (inches): 1  
 Water Table Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_  
 Saturation Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_  
 (includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

**Remarks:**

Surface water clearly from irrigation does not meet A1.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 6/6/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 9 Sampling Point: 16-N-201206061145  
 Investigators: Ron Kass Paul Dawson Section, Township, Range S 6 T 3 R 1  
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): Convex Slope(%) 1  
 Subregion (LRR): LRR D Lat: 41.0310904995 Long: -111.992391352 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Warm Springs fine sandy loam, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> Wetland ID: _____
Hydric Soil Present?	Yes _____ No <u>X</u>	
Wetland Hydrology Present?	Yes _____ No <u>X</u>	

Remarks:  
 Upland point

## VEGETATION— Use scientific names of plants.

**Absolute % Cover** **Dominant Species** **Indicator Status**

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

Thinopyrum ponticum	50	Y	UPL
Hordeum jubatum	20	Y	FAC
Bromus japonicus	5	N	UPL
Capsella bursa-pastoris	5	N	FACU
	80	=Total Cover	

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across all Strata: 2 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 50.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>0</u>	x 2 = <u>0</u>
FAC species <u>20</u>	x 3 = <u>60</u>
FACU species <u>5</u>	x 4 = <u>20</u>
UPL species <u>55</u>	x 5 = <u>275</u>
Column Totals: <u>80</u> (A)	<u>355</u> (B)

Prevalence Index = B/A = 4.44

### Hydrophytic Vegetation Indicators:

☐ Rapid Test for Hydrophytic Vegetation  
☐ Dominance Test > 50%  
☐ Prevalence Index ≤ 3.0  
☐ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
☐ Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes \_\_\_\_\_ No X

% Bare Ground in Herb Stratum \_\_\_\_\_ % Cover of Biotic Crust \_\_\_\_\_

Remarks: (Include photo numbers here or on a separate sheet.)

Upland vegetation community.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)		Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 16	10YR	4.0 / 2		100	40	C	M	SILTY CLAY LOAM

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)           |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)       |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)   |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)   |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input type="checkbox"/> Depleted Matrix (F3)       |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)     |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)          |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |   |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- |   |
|---|
| <input type="checkbox"/> 1 cm Muck (A9) (LRR C)     |
| <input type="checkbox"/> 2 cm Muck (A10) (LRR B)    |
| <input type="checkbox"/> Reduced Vertic (F18)       |
| <input type="checkbox"/> Red Parent Material (TF2)  |
| <input type="checkbox"/> Other (Explain in Remarks) |

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No X

## Remarks:

Soil fails to indicate hydric conditions.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- |   |
|---|
| <input type="checkbox"/> Water Marks (B1) (Riverine)            |
| <input type="checkbox"/> Sediment Deposits (B2) (Riverine)      |
| <input type="checkbox"/> Drift Deposits (B3) (Riverine)         |
| <input type="checkbox"/> Drainage Patterns (B10)                |
| <input type="checkbox"/> Dry-Season Water Table (C2)            |
| <input type="checkbox"/> Crayfish Burrows (C8)                  |
| <input type="checkbox"/> Saturation Visible on Aerial Imag.(C9) |
| <input type="checkbox"/> Shallow Aquitard (D3)                  |
| <input type="checkbox"/> FAC-Neutral Test (D5)                  |

**Field Observations:**Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Water Table Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Saturation Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_

(includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

No hydrology indicators observed.



# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 6/6/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 9 Sampling Point: 16-N-201206061440  
 Investigators: Ron Kass Paul Dawson Section, Township, Range S 32 T 4 R 1  
 Landform (hillslope, terrace, etc.): Basin Local Relief (concave, convex, none): Concave Slope(%) 1  
 Subregion (LRR): LRR D Lat: 41.0317283021 Long: -111.98803127 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Warm Springs fine sandy loam, saline, sodic, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology X, significantly disturbed? Are "Normal Circumstances" present? Yes \_\_\_\_\_ No X  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> <b>Wetland ID:</b> _____
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes _____ No <u>X</u>	

Remarks:  
 Former marsh not a wetland as a result of housing construction upslope.

## VEGETATION— Use scientific names of plants.

<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
<u>60</u>	<u>Y</u>	<u>FAC</u>
<u>10</u>	<u>N</u>	<u>FACW</u>
<u>70</u>	<u>=Total Cover</u>	

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

Hordeum jubatum

Phalaris arundinacea

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across all Strata: 1 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>10</u>	x 2 = <u>20</u>
FAC species <u>60</u>	x 3 = <u>180</u>
FACU species <u>0</u>	x 4 = <u>0</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>70</u> (A)	<u>200</u> (B)

Prevalence Index = B/A= 2.86

### Hydrophytic Vegetation Indicators:

   Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
   Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
   Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No \_\_\_\_\_

% Bare Ground in Herb Stratum 15 % Cover of Biotic Crust \_\_\_\_\_

Remarks: (Include photo numbers here or on a separate sheet.)  
 Former marsh now dry with mostly dead vegetation (Typha and Phalaris). Only live vegetation considered (even that lacks vigor).

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 2	10YR	3.0 / 2	100				SILT LOAM	
2 to 18	GLE Y 1	2.5 / N	100				muck	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)           |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)       |
| <input checked="" type="checkbox"/> Black Histic (A3)      | <input type="checkbox"/> Loamy Mucky Mineral (F1)   |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)   |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input type="checkbox"/> Depleted Matrix (F3)       |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)     |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)          |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |   |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- |   |
|---|
| <input type="checkbox"/> 1 cm Muck (A9) (LRR C)     |
| <input type="checkbox"/> 2 cm Muck (A10) (LRR B)    |
| <input type="checkbox"/> Reduced Vertic (F18)       |
| <input type="checkbox"/> Red Parent Material (TF2)  |
| <input type="checkbox"/> Other (Explain in Remarks) |

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes   X   No       

## Remarks:

Soil appears to fit hydric indicator A3 because of its very dark color and organic composition.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- |   |
|---|
| <input type="checkbox"/> Water Marks (B1) (Riverine)            |
| <input type="checkbox"/> Sediment Deposits (B2) (Riverine)      |
| <input type="checkbox"/> Drift Deposits (B3) (Riverine)         |
| <input checked="" type="checkbox"/> Drainage Patterns (B10)     |
| <input type="checkbox"/> Dry-Season Water Table (C2)            |
| <input type="checkbox"/> Crayfish Burrows (C8)                  |
| <input type="checkbox"/> Saturation Visible on Aerial Imag.(C9) |
| <input type="checkbox"/> Shallow Aquitard (D3)                  |
| <input type="checkbox"/> FAC-Neutral Test (D5)                  |

**Field Observations:**

Surface Water Present?	Yes <u>      </u>	No <u>  X  </u>	Depth (inches):	_____
Water Table Present?	Yes <u>      </u>	No <u>  X  </u>	Depth (inches):	_____
Saturation Present?	Yes <u>      </u>	No <u>  X  </u>	Depth (inches):	_____

(includes capillary fringe)

**Wetland Hydrology Present?** Yes        No   X  

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

Changing land use upslope. Housing development upslope. Tile drains 4-6 feet below surface.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 6/7/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 9 Sampling Point: 16-N-201206070830  
 Investigators: Ron Kass Paul Dawson Section, Township, Range S 6 T 3 R 1  
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): None Slope(%) 1  
 Subregion (LRR): LRR D Lat: 41.0306392621 Long: -111.990249519 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Warm Springs fine sandy loam, saline, sodic, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland?	Yes _____ No <u>X</u>
Hydric Soil Present?	Yes _____ No <u>X</u>		
Wetland Hydrology Present?	Yes _____ No <u>X</u>		Wetland ID: _____

Remarks:  
 Upland point.

## VEGETATION— Use scientific names of plants.

Absolute  
% Cover

Dominant  
Species

Indicator  
Status

Tree Stratum

Shrub Stratum

Herb Stratum (Plot size: 30 Ft )

Thinopyrum intermedium

95

Y

UPL

95

=Total Cover

Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species  
That are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant  
Species Across all Strata: 1 (B)

Percent of Dominant Species  
That are OBL, FACW, or FAC: 0.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	<u>0</u>	x 1 =	<u>0</u>
FACW species	<u>0</u>	x 2 =	<u>0</u>
FAC species	<u>0</u>	x 3 =	<u>0</u>
FACU species	<u>0</u>	x 4 =	<u>0</u>
UPL species	<u>95</u>	x 5 =	<u>475</u>
Column Totals:	<u>95</u> (A)		<u>475</u> (B)

Prevalence Index = B/A= 5.00

### Hydrophytic Vegetation Indicators:

       Rapid Test for Hydrophytic Vegetation  
       Dominance Test > 50%  
       Prevalence Index ≤ 3.0  
       Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
       Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic  
Vegetation Present?** Yes \_\_\_\_\_ No X

% Bare Ground in Herb Stratum 0 % Cover of Biotic Crust

Remarks: (Include photo numbers here or on a separate sheet.)

Upland vegetation.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 18	10YR	4.0 / 2				M	SILTY CLAY LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)           |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)       |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)   |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)   |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input type="checkbox"/> Depleted Matrix (F3)       |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)     |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)          |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |   |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)
- ☐ 2 cm Muck (A10) (LRR B)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No X

## Remarks:

Soil fails to indicate hydric conditions.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)
- ☐ Sediment Deposits (B2) (Riverine)
- ☐ Drift Deposits (B3) (Riverine)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

**Field Observations:**Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Water Table Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Saturation Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_

(includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

No hydrology indicators observed.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 6/6/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 8 Sampling Point: 16-W-201206060831  
 Investigators: Ron Kass Paul Dawson Section, Township, Range S 31 T 4 R 1  
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): Concave Slope(%) 1  
 Subregion (LRR): LRR D Lat: 41.0357041176 Long: -111.996707823 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Logan silty clay loam, 0 to 3 percent slopes NWI Classification: PEMC  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No        (If No, explain in Remarks)  
 Are Vegetation       , Soil       , Hydrology       , significantly disturbed? Are "Normal Circumstances" present? Yes X No         
 Are Vegetation       , Soil       , Hydrology       , naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No <u>      </u> Hydric Soil Present? Yes <u>X</u> No <u>      </u> Wetland Hydrology Present? Yes <u>X</u> No <u>      </u>	Is the Sampled Area within a Wetland? Yes <u>X</u> No <u>      </u> Wetland ID: <u>16-W-15</u>
---	---

Remarks:  
 Seasonal wetland may be caused by road to west.

## VEGETATION— Use scientific names of plants.

	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
<u>Tree Stratum</u>			
<u>Shrub Stratum</u>			
<u>Herb Stratum</u> (Plot size: <u>30 Ft</u> )			
Eleocharis palustris	40	Y	OBL
Elymus repens	20	Y	FAC
Festuca pratensis	15	N	FACU
Hordeum jubatum	5	N	FAC
Poa pratensis	5	N	FAC
	85	=Total Cover	

Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 2 (A)  
 Total Number of Dominant Species Across all Strata: 2 (B)  
 Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>40</u>	x 1 = <u>40</u>
FACW species <u>0</u>	x 2 = <u>0</u>
FAC species <u>30</u>	x 3 = <u>90</u>
FACU species <u>15</u>	x 4 = <u>60</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>85</u> (A)	<u>190</u> (B)

Prevalence Index = B/A = 2.24

### Hydrophytic Vegetation Indicators:

       Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
       Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
       Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No       

% Bare Ground in Herb Stratum 5 % Cover of Biotic Crust       

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation is hydrophytic.



**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)**

Depth (inches)	Matrix			Redox Features				Texture	Remarks
	Color (moist)		%	Color (moist)		%	Type <sup>1</sup>		
0 to 12	10YR	3.0 / 1	98	Gley1 2.5/N	2	D	M	SILT LOAM	
12 to 18	10YR	5.0 / 2	80	Gley1 2.5/N	20	C	M	SILTY CLAY LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |   |   |
|---|---|
| <input type="checkbox"/> Histosol (A1)                                | <input type="checkbox"/> Sandy Redox (S5)                   |
| <input type="checkbox"/> Histic Epipedon (A2)                         | <input type="checkbox"/> Stripped Matrix (S6)               |
| <input type="checkbox"/> Black Histic (A3)                            | <input type="checkbox"/> Loamy Mucky Mineral (F1)           |
| <input type="checkbox"/> Hydrogen Sulfide (A4)                        | <input type="checkbox"/> Loamy Gleyed Matrix (F2)           |
| <input type="checkbox"/> Stratified Layers (A5) LRR C                 | <input type="checkbox"/> Depleted Matrix (F3)               |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D                       | <input checked="" type="checkbox"/> Redox Dark Surface (F6) |
| <input checked="" type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7)         |
| <input type="checkbox"/> Thick Dark Surface (A12)                     | <input type="checkbox"/> Redox Depressions (F8)             |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)                     | <input type="checkbox"/> Vernal Pools (F9)                  |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)                     |   |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)
- ☐ 2 cm Muck (A10) (LRR B)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes X No \_\_\_\_\_

## Remarks:

Soil meets criteria for hydric indicator F6, and borderline A11.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input checked="" type="checkbox"/> Surface Soil Cracks (B6)       | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)
- ☐ Sediment Deposits (B2) (Riverine)
- ☐ Drift Deposits (B3) (Riverine)
- ☒ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Shallow Aquitard (D3)
- ☒ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present?	Yes _____ No <u>X</u>	Depth (inches): _____
Water Table Present?	Yes _____ No <u>X</u>	Depth (inches): _____
Saturation Present?	Yes _____ No <u>X</u>	Depth (inches): _____

(includes capillary fringe)

**Wetland Hydrology Present?** Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

Prominent surface soil cracks suggest seasonal ponding. Connected by ditch to west.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 6/6/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 9 Sampling Point: 16-W-201206061140  
 Investigators: Ron Kass Paul Dawson Section, Township, Range S 6 T 3 R 1  
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): None Slope(%) 1  
 Subregion (LRR): LRR D Lat: 41.0310299885 Long: -111.992380242 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Warm Springs fine sandy loam, 0 to 1 percent slopes NWI Classification: PEMC  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No        (If No, explain in Remarks)  
 Are Vegetation       , Soil       , Hydrology       , significantly disturbed? Are "Normal Circumstances" present? Yes X No         
 Are Vegetation       , Soil       , Hydrology       , naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No <u>      </u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No <u>      </u> Wetland ID: <u>16-W-14</u>
Hydric Soil Present? Yes <u>X</u> No <u>      </u>	
Wetland Hydrology Present? Yes <u>X</u> No <u>      </u>	

Remarks:  
 Inundated emergent marsh wetland.

## VEGETATION— Use scientific names of plants.

	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
<u>Tree Stratum</u>			
<u>Shrub Stratum</u>			
<u>Herb Stratum</u> (Plot size: <u>30 Ft</u> )			
<u>Typha latifolia</u>	<u>50</u>	<u>Y</u>	<u>OBL</u>
<u>Eleocharis palustris</u>	<u>20</u>	<u>Y</u>	<u>OBL</u>
<u>Hordeum jubatum</u>	<u>20</u>	<u>Y</u>	<u>FAC</u>
	<u>90</u>	<u>=Total Cover</u>	
<u>Vine Stratum</u>			

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 3 (A)  
 Total Number of Dominant Species Across all Strata: 3 (B)  
 Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>70</u>	x 1 = <u>70</u>
FACW species <u>0</u>	x 2 = <u>0</u>
FAC species <u>20</u>	x 3 = <u>60</u>
FACU species <u>0</u>	x 4 = <u>0</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>90</u> (A)	<u>130</u> (B)

Prevalence Index = B/A = 1.44

### Hydrophytic Vegetation Indicators:

       Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
       Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
       Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No       

% Bare Ground in Herb Stratum        % Cover of Biotic Crust       

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation is hydrophytic.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)           |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)       |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)   |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)   |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input type="checkbox"/> Depleted Matrix (F3)       |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)     |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)          |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |   |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)  
☐ 2 cm Muck (A10) (LRR B)  
☐ Reduced Vertic (F18)  
☐ Red Parent Material (TF2)  
☒ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes X No \_\_\_\_\_**Remarks:**

Hydric soils assumed in inundated area with obligate vegetation and fully inundated hydrology.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input checked="" type="checkbox"/> Surface Water (A1)             | <input type="checkbox"/> Salt Crust (B11)                              |
| <input checked="" type="checkbox"/> High Water Table (A2)          | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input checked="" type="checkbox"/> Saturation (A3)                | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)  
☐ Sediment Deposits (B2) (Riverine)  
☐ Drift Deposits (B3) (Riverine)  
☐ Drainage Patterns (B10)  
☐ Dry-Season Water Table (C2)  
☐ Crayfish Burrows (C8)  
☐ Saturation Visible on Aerial Imag.(C9)  
☐ Shallow Aquitard (D3)  
☒ FAC-Neutral Test (D5)

**Field Observations:**Surface Water Present? Yes X No \_\_\_\_\_ Depth (inches): 5Water Table Present? Yes X No \_\_\_\_\_ Depth (inches): 0Saturation Present? Yes X No \_\_\_\_\_ Depth (inches): 0

(includes capillary fringe)

**Wetland Hydrology Present?** Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

**Remarks:**

Wetland hydrology present, fully inundated.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 6/7/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 9 Sampling Point: 17-N-201206070900  
 Investigators: Ron Kass Paul Dawson Section, Township, Range S 6 T 3 R 1  
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): None Slope(%) 2  
 Subregion (LRR): LRR D Lat: 41.0302355863 Long: -111.990547277 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Warm Springs fine sandy loam, saline, sodic, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland?	Yes _____ No <u>X</u>
Hydric Soil Present?	Yes _____ No <u>X</u>		
Wetland Hydrology Present?	Yes _____ No <u>X</u>		Wetland ID: _____

Remarks:  
 Upland pasture.

## VEGETATION— Use scientific names of plants.

Absolute  
% Cover

Dominant  
Species

Indicator  
Status

Tree Stratum

Shrub Stratum

Herb Stratum (Plot size: 30 Ft )

Thinopyrum intermedium

90

Y

UPL

90

=Total Cover

Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species  
That are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant  
Species Across all Strata: 1 (B)

Percent of Dominant Species  
That are OBL, FACW, or FAC: 0.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	<u>0</u>	x 1 =	<u>0</u>
FACW species	<u>0</u>	x 2 =	<u>0</u>
FAC species	<u>0</u>	x 3 =	<u>0</u>
FACU species	<u>0</u>	x 4 =	<u>0</u>
UPL species	<u>90</u>	x 5 =	<u>450</u>
Column Totals:	<u>90</u> (A)		<u>450</u> (B)

Prevalence Index = B/A= 5.00

### Hydrophytic Vegetation Indicators:

       Rapid Test for Hydrophytic Vegetation  
       Dominance Test > 50%  
       Prevalence Index ≤ 3.0  
       Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
       Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes \_\_\_\_\_ No X

% Bare Ground in Herb Stratum 5 % Cover of Biotic Crust

Remarks: (Include photo numbers here or on a separate sheet.)

Upland vegetation.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 18	10YR	4.0 / 2		100			SILTY CLAY LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)           |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)       |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)   |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)   |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input type="checkbox"/> Depleted Matrix (F3)       |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)     |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)          |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |   |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- |   |
|---|
| <input type="checkbox"/> 1 cm Muck (A9) (LRR C)     |
| <input type="checkbox"/> 2 cm Muck (A10) (LRR B)    |
| <input type="checkbox"/> Reduced Vertic (F18)       |
| <input type="checkbox"/> Red Parent Material (TF2)  |
| <input type="checkbox"/> Other (Explain in Remarks) |

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No X

## Remarks:

Soil fails to indicate hydric conditions.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- |   |
|---|
| <input type="checkbox"/> Water Marks (B1) (Riverine)            |
| <input type="checkbox"/> Sediment Deposits (B2) (Riverine)      |
| <input type="checkbox"/> Drift Deposits (B3) (Riverine)         |
| <input type="checkbox"/> Drainage Patterns (B10)                |
| <input type="checkbox"/> Dry-Season Water Table (C2)            |
| <input type="checkbox"/> Crayfish Burrows (C8)                  |
| <input type="checkbox"/> Saturation Visible on Aerial Imag.(C9) |
| <input type="checkbox"/> Shallow Aquitard (D3)                  |
| <input type="checkbox"/> FAC-Neutral Test (D5)                  |

**Field Observations:**Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Water Table Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Saturation Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_

(includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

No hydrology indicators observed.

## Remarks:



# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 6/7/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 9 Sampling Point: 17-W-201206070804  
 Investigators: Ron Kass Paul Dawson Section, Township, Range S 6 T 3 R 1  
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): Concave Slope(%) 0  
 Subregion (LRR): LRR D Lat: 41.0305021507 Long: -111.990196275 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Warm Springs fine sandy loam, saline, sodic, 0 to 1 percent slopes NWI Classification: PEMC  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No        (If No, explain in Remarks)  
 Are Vegetation       , Soil       , Hydrology X, significantly disturbed? Are "Normal Circumstances" present? Yes        No X  
 Are Vegetation       , Soil       , Hydrology       , naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No <u>      </u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No <u>      </u> Wetland ID: <u>17-W-99</u>
Hydric Soil Present? Yes <u>X</u> No <u>      </u>	
Wetland Hydrology Present? Yes <u>X</u> No <u>      </u>	

Remarks:  
 Sampling point is a wetland. Ditch cleanout has removed flooding.

## VEGETATION— Use scientific names of plants.

<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
50	Y	FAC
50	Y	FACW
100	=Total Cover	

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

Distichlis spicata

Phalaris arundinacea

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across all Strata: 2 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>50</u>	x 2 = <u>100</u>
FAC species <u>50</u>	x 3 = <u>150</u>
FACU species <u>0</u>	x 4 = <u>0</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>100</u> (A)	<u>250</u> (B)

Prevalence Index = B/A = 2.50

### Hydrophytic Vegetation Indicators:

       Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
       Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
       Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No       

% Bare Ground in Herb Stratum 5 % Cover of Biotic Crust

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation is hydrophytic.

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix			Redox Features				Texture	Remarks
	Color (moist)		%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 16	10YR	2.0/ 1	100					SILTY CLAY LOAM	
16 to 20	10YR	4.0/ 2	20	10YR 5/1	20	C	M	CLAY LOAM	
16 to 20		/		10YR 4/4	60	D	M	CLAY LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.      <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators:**

☐ Histosol (A1)☐ Histic Epipedon (A2)☐ Black Histic (A3)☐ Hydrogen Sulfide (A4)☐ Stratified Layers (A5) LRR C☐ 1 cm Muck (A9) LRR F D☐ Depleted Below Dark Surface (A11)☒ Thick Dark Surface (A12)☐ Sandy Mucky Mineral (S1)☐ Sandy Gleyed Matrix (S4)

☐ Sandy Redox (S5)☐ Stripped Matrix (S6)☐ Loamy Mucky Mineral (F1)☐ Loamy Gleyed Matrix (F2)☐ Depleted Matrix (F3)☐ Redox Dark Surface (F6)☐ Depleted Dark Surface (F7)☐ Redox Depressions (F8)☐ Vernal Pools (F9)

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

☐ 1 cm Muck (A9) (LRR C)☐ 2 cm Muck (A10) (LRR B)☐ Reduced Vertic (F18)☐ Red Parent Material (TF2)☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: Depth (inches):

Hydric Soil Present?

Yes ☒

No ☐

Remarks:

Soil meets criteria for hydric indicator A12.

HYDROLOGY

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

☐ Surface Water (A1)☐ High Water Table (A2)☐ Saturation (A3)☐ Water Marks (B1) (Nonriverine)☐ Sediment Deposits (B2) (Nonriverine)☐ Drift Deposits (B3) (Nonriverine)☒ Surface Soil Cracks (B6)☐ Inundation Visible on Aerial Imagery (B7)☐ Water-Stained Leaves (B9)

☐ Salt Crust (B11)☐ Biotic Crust (B12)☐ Aquatic Fauna (B13)☐ Hydrogen Sulfide Odor (C1)☐ Oxidized Rhizospheres along Living Roots (C3)☐ Presence of Reduced Iron (C4)☐ Recent Iron Reduction in Tilled Soils (C6)☐ Thin Muck Surface (C7)☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

☐ Water Marks (B1) (Riverine)☐ Sediment Deposits (B2) (Riverine)☐ Drift Deposits (B3) (Riverine)☒ Drainage Patterns (B10)☐ Dry-Season Water Table (C2)☐ Crayfish Burrows (C8)☐ Saturation Visible on Aerial Imag.(C9)☐ Shallow Aquitard (D3)☒ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present?      Yes ☐ No ☒      Depth (inches):

Water Table Present?      Yes ☐ No ☒      Depth (inches):

Saturation Present?      Yes ☐ No ☒      Depth (inches):

(includes capillary fringe)

Wetland Hydrology Present?

Yes ☒

No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Prominent surface soil cracks suggest seasonal ponding.

US Army Corps of Engineers

HDR

Arid West – Version 2.0

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 6/7/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 9 Sampling Point: 17-W-201206070845  
 Investigators: Ron Kass Paul Dawson Section, Township, Range S 6 T 3 R 1  
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): Concave Slope(%) 0  
 Subregion (LRR): LRR D Lat: 41.0301441699 Long: -111.990361342 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Pintailake-Eimarsh-Playas complex, 0 to 1 percent slopes NWI Classification: PEMC  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes      No X (If No, explain in Remarks)  
 Are Vegetation     , Soil     , Hydrology X, significantly disturbed? Are "Normal Circumstances" present? Yes      No X  
 Are Vegetation     , Soil     , Hydrology     , naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No <u>    </u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No <u>    </u> <b>Wetland ID:</b> <u>17-W-18</u>
Hydric Soil Present? Yes <u>X</u> No <u>    </u>	
Wetland Hydrology Present? Yes <u>X</u> No <u>    </u>	

Remarks:  
 Sampling point is a wetland.

## VEGETATION— Use scientific names of plants.

**Absolute % Cover** **Dominant Species** **Indicator Status**

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

Distichlis spicata	20	Y	FAC
Agrostis stolonifera	5	N	FACW
Hordeum jubatum	5	N	FAC
Eleocharis palustris	1	N	OBL
	31	=Total Cover	

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across all Strata: 1 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>1</u>	x 1 = <u>1</u>
FACW species <u>5</u>	x 2 = <u>10</u>
FAC species <u>25</u>	x 3 = <u>75</u>
FACU species <u>0</u>	x 4 = <u>0</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>31</u> (A)	<u>86</u> (B)

Prevalence Index = B/A= 2.77

### Hydrophytic Vegetation Indicators:

     Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
     Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
     Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No     

% Bare Ground in Herb Stratum 60 % Cover of Biotic Crust     

Remarks: (Include photo numbers here or on a separate sheet.)  
 Vegetation is hydrophytic although obligate vegetation appears stressed.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features					Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>			
0 to 6	10YR	3.0 / 2	100					SILTY CLAY LOAM	
6 to 18	10YR	5 / 2	45	Gley1 2.5/N	35	C	M	CLAY LOAM	Mn
6 to 18		/		10YR 4/6	20	C	M	CLAY LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |  |
|--|--|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)                |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)            |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)        |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)        |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input checked="" type="checkbox"/> Depleted Matrix (F3) |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)         |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7)      |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)          |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)               |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |  |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)  
☐ 2 cm Muck (A10) (LRR B)  
☐ Reduced Vertic (F18)  
☐ Red Parent Material (TF2)  
☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes X No \_\_\_\_\_

## Remarks:

Soil meets criteria for hydric indicator F3.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input checked="" type="checkbox"/> Salt Crust (B11)                   |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)  
☐ Sediment Deposits (B2) (Riverine)  
☐ Drift Deposits (B3) (Riverine)  
☒ Drainage Patterns (B10)  
☐ Dry-Season Water Table (C2)  
☐ Crayfish Burrows (C8)  
☐ Saturation Visible on Aerial Imag.(C9)  
☐ Shallow Aquitard (D3)  
☐ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present?	Yes _____ No <u>X</u>	Depth (inches): _____
Water Table Present?	Yes _____ No <u>X</u>	Depth (inches): _____
Saturation Present?	Yes _____ No <u>X</u>	Depth (inches): _____

(includes capillary fringe)

**Wetland Hydrology Present?** Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

Ditch cleanout likely reduced hydrology.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 6/6/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 8 Sampling Point: 16-N-201206060855  
 Investigators: Ron Kass Paul Dawson Section, Township, Range S 31 T 4 R 1  
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): None Slope(%) 1  
 Subregion (LRR): LRR D Lat: 41.0358282261 Long: -111.996604842 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Logan silty clay loam, 0 to 3 percent slopes NWI Classification: \_\_\_\_\_  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> Wetland ID: _____
Hydric Soil Present?	Yes _____ No <u>X</u>	
Wetland Hydrology Present?	Yes _____ No <u>X</u>	

Remarks:  
 Upland pasture.

## VEGETATION— Use scientific names of plants.

	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
<u>Tree Stratum</u>			
<u>Shrub Stratum</u>			
<u>Herb Stratum</u> (Plot size: <u>30 Ft</u> )			
<u>Festuca pratensis</u>	<u>90</u>	<u>Y</u>	<u>FACU</u>
<u>Poa pratensis</u>	<u>5</u>	<u>N</u>	<u>FAC</u>
	<u>95</u>	<u>=Total Cover</u>	
<u>Vine Stratum</u>			

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 0 (A)  
 Total Number of Dominant Species Across all Strata: 1 (B)  
 Percent of Dominant Species That are OBL, FACW, or FAC: 0.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>0</u>	x 2 = <u>0</u>
FAC species <u>5</u>	x 3 = <u>15</u>
FACU species <u>90</u>	x 4 = <u>360</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>95</u> (A)	<u>375</u> (B)
Prevalence Index = B/A= <u>3.95</u>	

### Hydrophytic Vegetation Indicators:

☐ Rapid Test for Hydrophytic Vegetation  
☐ Dominance Test > 50%  
☐ Prevalence Index ≤ 3.0  
☐ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
☐ Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes \_\_\_\_\_ No X

% Bare Ground in Herb Stratum 1 % Cover of Biotic Crust

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation is not hydrophytic.



**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 16	10YR	4.0 / 2		20	C	M	SILTY CLAY LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)           |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)       |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)   |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)   |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input type="checkbox"/> Depleted Matrix (F3)       |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)     |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)          |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |   |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)
- ☐ 2 cm Muck (A10) (LRR B)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No X

## Remarks:

Soil fails to indicate hydric conditions.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)
- ☐ Sediment Deposits (B2) (Riverine)
- ☐ Drift Deposits (B3) (Riverine)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

**Field Observations:**Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Water Table Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Saturation Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_

(includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

No hydrology indicators observed.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 6/6/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 8 Sampling Point: 16-N-201206060927  
 Investigators: Ron Kass Paul Dawson Section, Township, Range S 31 T 4 R 1  
 Landform (hillslope, terrace, etc.): \_\_\_\_\_ Local Relief (concave, convex, none): \_\_\_\_\_ Slope(%) \_\_\_\_\_  
 Subregion (LRR): LRR D Lat: 41.0379738977 Long: -111.997441683 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Warm Springs fine sandy loam, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> Wetland ID: _____
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	
Remarks: Not a wetland.	

## VEGETATION— Use scientific names of plants.

**Absolute % Cover** **Dominant Species** **Indicator Status**

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

Trifolium fragiferum	40	Y	FACU
Eleocharis palustris	20	Y	OBL
Festuca pratensis	20	Y	FACU
Hordeum jubatum	20	Y	FAC
	100	=Total Cover	

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 2 (A)  
 Total Number of Dominant Species Across all Strata: 4 (B)  
 Percent of Dominant Species That are OBL, FACW, or FAC: 50.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	<u>20</u>	x 1 =	<u>20</u>
FACW species	<u>0</u>	x 2 =	<u>0</u>
FAC species	<u>20</u>	x 3 =	<u>60</u>
FACU species	<u>60</u>	x 4 =	<u>240</u>
UPL species	<u>0</u>	x 5 =	<u>0</u>
Column Totals:	<u>100</u> (A)		<u>320</u> (B)
Prevalence Index = B/A=		<u>3.20</u>	

### Hydrophytic Vegetation Indicators:

☐ Rapid Test for Hydrophytic Vegetation  
☐ Dominance Test > 50%  
☐ Prevalence Index ≤ 3.0  
☐ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
☐ Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes \_\_\_\_\_ No X

% Bare Ground in Herb Stratum 5 % Cover of Biotic Crust \_\_\_\_\_

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation is not hydrophytic.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix			Redox Features				Texture	Remarks
	Color (moist)		%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 8	10YR	2.0 / 1	100					SILT LOAM	
8 to 18	10YR	4.0 / 2	95	Gley1 2.5/N	2	C	M	FINE SANDY LOAM	also: 10YR 6/2 3% D M

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- ☐ Histosol (A1)  
☐ Histic Epipedon (A2)  
☐ Black Histic (A3)  
☐ Hydrogen Sulfide (A4)  
☐ Stratified Layers (A5) LRR C  
☐ 1 cm Muck (A9) LRR F D  
☒ Depleted Below Dark Surface (A11)  
☐ Thick Dark Surface (A12)  
☐ Sandy Mucky Mineral (S1)  
☐ Sandy Gleyed Matrix (S4)

- ☐ Sandy Redox (S5)  
☐ Stripped Matrix (S6)  
☐ Loamy Mucky Mineral (F1)  
☐ Loamy Gleyed Matrix (F2)  
☐ Depleted Matrix (F3)  
☐ Redox Dark Surface (F6)  
☐ Depleted Dark Surface (F7)  
☐ Redox Depressions (F8)  
☐ Vernal Pools (F9)

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)  
☐ 2 cm Muck (A10) (LRR B)  
☐ Reduced Vertic (F18)  
☐ Red Parent Material (TF2)  
☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes X No \_\_\_\_\_

## Remarks:

Soil meets criteria for hydric indicator A11.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)  
☐ High Water Table (A2)  
☐ Saturation (A3)  
☐ Water Marks (B1) (Nonriverine)  
☐ Sediment Deposits (B2) (Nonriverine)  
☐ Drift Deposits (B3) (Nonriverine)  
☒ Surface Soil Cracks (B6)  
☐ Inundation Visible on Aerial Imagery (B7)  
☐ Water-Stained Leaves (B9)  
☐ Salt Crust (B11)  
☐ Biotic Crust (B12)  
☐ Aquatic Fauna (B13)  
☐ Hydrogen Sulfide Odor (C1)  
☐ Oxidized Rhizospheres along Living Roots (C3)  
☐ Presence of Reduced Iron (C4)  
☐ Recent Iron Reduction in Tilled Soils (C6)  
☐ Thin Muck Surface (C7)  
☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)  
☐ Sediment Deposits (B2) (Riverine)  
☐ Drift Deposits (B3) (Riverine)  
☒ Drainage Patterns (B10)  
☐ Dry-Season Water Table (C2)  
☐ Crayfish Burrows (C8)  
☐ Saturation Visible on Aerial Imag.(C9)  
☐ Shallow Aquitard (D3)  
☐ FAC-Neutral Test (D5)

**Field Observations:**Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Water Table Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Saturation Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_

(includes capillary fringe)

**Wetland Hydrology Present?** Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

Prominent surface soil cracks suggest seasonal ponding.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 6/6/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 8 Sampling Point: 16-N-201206061015  
 Investigators: Ron Kass Paul Dawson Section, Township, Range S 31 T 4 R 1  
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): None Slope(%) 1  
 Subregion (LRR): LRR D Lat: 41.037054244 Long: -111.997844049 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Ironston silt loam, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland?	Yes _____ No <u>X</u>
Hydric Soil Present?	Yes _____ No <u>X</u>		
Wetland Hydrology Present?	Yes _____ No <u>X</u>		Wetland ID: _____

Remarks:  
 Upland point.

## VEGETATION— Use scientific names of plants.

Absolute  
% Cover

Dominant  
Species

Indicator  
Status

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

<u>Festuca pratensis</u>	<u>90</u>	<u>Y</u>	<u>FACU</u>
<u>Carex praegracilis</u>	<u>5</u>	<u>N</u>	<u>FACW</u>
<u>Trifolium repens</u>	<u>5</u>	<u>N</u>	<u>FACU</u>
	<u>100</u>	=Total Cover	

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species  
That are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant  
Species Across all Strata: 1 (B)

Percent of Dominant Species  
That are OBL, FACW, or FAC: 0.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>5</u>	x 2 = <u>10</u>
FAC species <u>0</u>	x 3 = <u>0</u>
FACU species <u>95</u>	x 4 = <u>380</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>100</u> (A)	<u>390</u> (B)

Prevalence Index = B/A= 3.90

### Hydrophytic Vegetation Indicators:

\_\_\_\_ Rapid Test for Hydrophytic Vegetation  
 \_\_\_\_ Dominance Test > 50%  
 \_\_\_\_ Prevalence Index ≤ 3.0  
 \_\_\_\_ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 \_\_\_\_ Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic  
Vegetation Present? Yes \_\_\_\_\_ No X

% Bare Ground in Herb Stratum 2 % Cover of Biotic Crust

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation is not hydrophytic.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 16	10YR	4.0 / 2		100			SILTY CLAY LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)           |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)       |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)   |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)   |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input type="checkbox"/> Depleted Matrix (F3)       |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)     |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)          |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |   |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- |   |
|---|
| <input type="checkbox"/> 1 cm Muck (A9) (LRR C)     |
| <input type="checkbox"/> 2 cm Muck (A10) (LRR B)    |
| <input type="checkbox"/> Reduced Vertic (F18)       |
| <input type="checkbox"/> Red Parent Material (TF2)  |
| <input type="checkbox"/> Other (Explain in Remarks) |

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No X

## Remarks:

Soil fails to indicate hydric conditions.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- |   |
|---|
| <input type="checkbox"/> Water Marks (B1) (Riverine)            |
| <input type="checkbox"/> Sediment Deposits (B2) (Riverine)      |
| <input type="checkbox"/> Drift Deposits (B3) (Riverine)         |
| <input type="checkbox"/> Drainage Patterns (B10)                |
| <input type="checkbox"/> Dry-Season Water Table (C2)            |
| <input type="checkbox"/> Crayfish Burrows (C8)                  |
| <input type="checkbox"/> Saturation Visible on Aerial Imag.(C9) |
| <input type="checkbox"/> Shallow Aquitard (D3)                  |
| <input type="checkbox"/> FAC-Neutral Test (D5)                  |

**Field Observations:**Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Water Table Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Saturation Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_

(includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

No hydrology indicators observed.



# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 6/7/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 8 Sampling Point: 16-N-201206071150  
 Investigators: Trent Toler Mike Perkins Section, Township, Range S 31 T 4 R 1  
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): Convex Slope(%) 1  
 Subregion (LRR): LRR D Lat: 41.0423444681 Long: -112.00242106 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Warm Springs fine sandy loam, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> <b>Wetland ID:</b> _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	

Remarks:  
 Non-wetland sample point in small fenced field; thick juncus seems odd vs adjacent areas that look drier at similar/lower elevation.

## VEGETATION— Use scientific names of plants.

	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
<u>Tree Stratum</u>			
<u>Shrub Stratum</u>			
<u>Herb Stratum</u> (Plot size: <u>30 Ft</u> )			
Juncus arcticus	95	Y	FACW
Elaeagnus angustifolia	10	N	FAC
Atriplex micrantha	5	N	UPL
	110	=Total Cover	
<u>Vine Stratum</u>			

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 1 (A)  
 Total Number of Dominant Species Across all Strata: 1 (B)  
 Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>95</u>	x 2 = <u>190</u>
FAC species <u>10</u>	x 3 = <u>30</u>
FACU species <u>0</u>	x 4 = <u>0</u>
UPL species <u>5</u>	x 5 = <u>25</u>
Column Totals: <u>110</u> (A)	<u>245</u> (B)
Prevalence Index = B/A= <u>2.23</u>	

### Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
 Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No \_\_\_\_\_

% Bare Ground in Herb Stratum 0 % Cover of Biotic Crust \_\_\_\_\_

Remarks: (Include photo numbers here or on a separate sheet.)

Pretty solid juncus field.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)		Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 3	10YR	3.0/ 3		100			SILT LOAM	
3 to 5	10YR	3.0/ 2		100			SILTY CLAY LOAM	
5 to 6	10YR	3.0/ 2	10YR 5/2	70	C	M	SILTY CLAY LOAM	
6 to 18	10YR	3.0/ 2					SANDY CLAY LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)           |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)       |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)   |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)   |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input type="checkbox"/> Depleted Matrix (F3)       |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)     |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)          |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |   |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- |   |
|---|
| <input type="checkbox"/> 1 cm Muck (A9) (LRR C)     |
| <input type="checkbox"/> 2 cm Muck (A10) (LRR B)    |
| <input type="checkbox"/> Reduced Vertic (F18)       |
| <input type="checkbox"/> Red Parent Material (TF2)  |
| <input type="checkbox"/> Other (Explain in Remarks) |

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No X

## Remarks:

Soil has a thin depleted layer but doesn't meet hydric criteria.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- |   |
|---|
| <input type="checkbox"/> Water Marks (B1) (Riverine)            |
| <input type="checkbox"/> Sediment Deposits (B2) (Riverine)      |
| <input type="checkbox"/> Drift Deposits (B3) (Riverine)         |
| <input type="checkbox"/> Drainage Patterns (B10)                |
| <input type="checkbox"/> Dry-Season Water Table (C2)            |
| <input type="checkbox"/> Crayfish Burrows (C8)                  |
| <input type="checkbox"/> Saturation Visible on Aerial Imag.(C9) |
| <input type="checkbox"/> Shallow Aquitard (D3)                  |
| <input checked="" type="checkbox"/> FAC-Neutral Test (D5)       |

**Field Observations:**Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Water Table Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Saturation Present? Yes X No \_\_\_\_\_ Depth (inches): 15

(includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

Area lacks sufficient evidence for wetland hydrology.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 6/7/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 8 Sampling Point: 16-N-201206071353  
 Investigators: Trent Toler Mike Perkins Section, Township, Range S 31 T 4 R 1  
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): Concave Slope(%) 1  
 Subregion (LRR): LRR D Lat: 41.0416842039 Long: -111.999791994 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Warm Springs fine sandy loam, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> <b>Wetland ID:</b> _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	

Remarks:  
 Soils and hydrology fail, point located in a horse pasture

## VEGETATION— Use scientific names of plants.

**Absolute % Cover** **Dominant Species** **Indicator Status**

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

Carex praegracilis	25	Y	FACW
Hordeum jubatum	20	Y	FAC
Juncus arcticus	20	Y	FACW
Elymus repens	15	N	FAC
Festuca pratensis	15	N	FACU
Bromus inermis	5	N	FACU
Atriplex micrantha	3	N	UPL
Medicago sativa	2	N	UPL
	105	=Total Cover	

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across all Strata: 3 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>45</u>	x 2 = <u>90</u>
FAC species <u>35</u>	x 3 = <u>105</u>
FACU species <u>20</u>	x 4 = <u>80</u>
UPL species <u>5</u>	x 5 = <u>25</u>
Column Totals: <u>105</u> (A)	<u>300</u> (B)

Prevalence Index = B/A = 2.86

### Hydrophytic Vegetation Indicators:

\_\_\_\_ Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
 \_\_\_\_ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 \_\_\_\_ Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No \_\_\_\_\_

% Bare Ground in Herb Stratum 0 % Cover of Biotic Crust \_\_\_\_\_

Remarks: (Include photo numbers here or on a separate sheet.)

Mix of FACW to FAC spp. with some FACU.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 1	10YR	2.0 / 1	100				SILTY CLAY LOAM	
1 to 14	10YR	3.0 / 2	100				SANDY CLAY LOAM	
14 to 20	10YR	4.0 / 2	100				LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- ☐ Histosol (A1)  
☐ Histic Epipedon (A2)  
☐ Black Histic (A3)  
☐ Hydrogen Sulfide (A4)  
☐ Stratified Layers (A5) LRR C  
☐ 1 cm Muck (A9) LRR F D  
☐ Depleted Below Dark Surface (A11)  
☐ Thick Dark Surface (A12)  
☐ Sandy Mucky Mineral (S1)  
☐ Sandy Gleyed Matrix (S4)

- ☐ Sandy Redox (S5)  
☐ Stripped Matrix (S6)  
☐ Loamy Mucky Mineral (F1)  
☐ Loamy Gleyed Matrix (F2)  
☐ Depleted Matrix (F3)  
☐ Redox Dark Surface (F6)  
☐ Depleted Dark Surface (F7)  
☐ Redox Depressions (F8)  
☐ Vernal Pools (F9)

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)  
☐ 2 cm Muck (A10) (LRR B)  
☐ Reduced Vertic (F18)  
☐ Red Parent Material (TF2)  
☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No X

## Remarks:

Soil fails to indicate hydric conditions.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)  
☐ High Water Table (A2)  
☐ Saturation (A3)  
☐ Water Marks (B1) (Nonriverine)  
☐ Sediment Deposits (B2) (Nonriverine)  
☐ Drift Deposits (B3) (Nonriverine)  
☐ Surface Soil Cracks (B6)  
☐ Inundation Visible on Aerial Imagery (B7)  
☐ Water-Stained Leaves (B9)  
☐ Salt Crust (B11)  
☐ Biotic Crust (B12)  
☐ Aquatic Fauna (B13)  
☐ Hydrogen Sulfide Odor (C1)  
☐ Oxidized Rhizospheres along Living Roots (C3)  
☐ Presence of Reduced Iron (C4)  
☐ Recent Iron Reduction in Tilled Soils (C6)  
☐ Thin Muck Surface (C7)  
☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)  
☐ Sediment Deposits (B2) (Riverine)  
☐ Drift Deposits (B3) (Riverine)  
☐ Drainage Patterns (B10)  
☐ Dry-Season Water Table (C2)  
☐ Crayfish Burrows (C8)  
☐ Saturation Visible on Aerial Imag.(C9)  
☐ Shallow Aquitard (D3)  
☒ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_  
Water Table Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_  
Saturation Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_  
(includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

Dry area lacks sufficient evidence for wetland hydrology.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 6/8/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 8 Sampling Point: 16-N-201206081009  
 Investigators: Mike Perkins Trent Toler Section, Township, Range S 31 T 4 R 1  
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): Concave Slope(%) 0  
 Subregion (LRR): LRR D Lat: 41.0402971055 Long: -112.001791473 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Warm Springs fine sandy loam, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes \_\_\_\_\_ No X  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology X, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland?	Yes _____ No <u>X</u>
Hydric Soil Present?	Yes _____ No <u>X</u>		
Wetland Hydrology Present?	Yes _____ No <u>X</u>		Wetland ID: _____

Remarks:  
 Well irrigated pasture / hayfield w/ low spots where more water collects.

## VEGETATION— Use scientific names of plants.

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
<u>Festuca pratensis</u>	<u>60</u>	<u>Y</u>	<u>FACU</u>
<u>Juncus arcticus</u>	<u>25</u>	<u>Y</u>	<u>FACW</u>
<u>Carex nebrascensis</u>	<u>15</u>	<u>N</u>	<u>OBL</u>
<u>Trifolium fragiferum</u>	<u>10</u>	<u>N</u>	<u>FACU</u>
<u>Hordeum jubatum</u>	<u>5</u>	<u>N</u>	<u>FAC</u>
	<u>115</u>	<u>=Total Cover</u>	

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species  
That are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant  
Species Across all Strata: 2 (B)

Percent of Dominant Species  
That are OBL, FACW, or FAC: 50.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>15</u>	x 1 = <u>15</u>
FACW species <u>25</u>	x 2 = <u>50</u>
FAC species <u>5</u>	x 3 = <u>15</u>
FACU species <u>70</u>	x 4 = <u>280</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>115</u> (A)	<u>360</u> (B)

Prevalence Index = B/A= 3.13

### Hydrophytic Vegetation Indicators:

☐ Rapid Test for Hydrophytic Vegetation  
☐ Dominance Test > 50%  
☐ Prevalence Index ≤ 3.0  
☐ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
☐ Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic  
Vegetation Present? Yes \_\_\_\_\_ No X

% Bare Ground in Herb Stratum 0 % Cover of Biotic Crust \_\_\_\_\_

Remarks: (Include photo numbers here or on a separate sheet.)

Mix of field grass and wet meadow species is not hydrophytic.



**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 3	10YR	3.0 / 2					LOAM	
3 to 11	10YR	3.0 / 2	10YR 5/2	15	D	M	SILTY CLAY LOAM	
11 to 19	10YR	5.0 / 2					CLAY LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- ☐ Histosol (A1)  
☐ Histic Epipedon (A2)  
☐ Black Histic (A3)  
☐ Hydrogen Sulfide (A4)  
☐ Stratified Layers (A5) LRR C  
☐ 1 cm Muck (A9) LRR F D  
☐ Depleted Below Dark Surface (A11)  
☐ Thick Dark Surface (A12)  
☐ Sandy Mucky Mineral (S1)  
☐ Sandy Gleyed Matrix (S4)

- ☐ Sandy Redox (S5)  
☐ Stripped Matrix (S6)  
☐ Loamy Mucky Mineral (F1)  
☐ Loamy Gleyed Matrix (F2)  
☐ Depleted Matrix (F3)  
☐ Redox Dark Surface (F6)  
☐ Depleted Dark Surface (F7)  
☐ Redox Depressions (F8)  
☐ Vernal Pools (F9)

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)  
☐ 2 cm Muck (A10) (LRR B)  
☐ Reduced Vertic (F18)  
☐ Red Parent Material (TF2)  
☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No X**Remarks:**

Dark soil with beginnings of depletions but does not meet hydric indicators; would need redox concentrations.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)  
☐ High Water Table (A2)  
☐ Saturation (A3)  
☐ Water Marks (B1) (Nonriverine)  
☐ Sediment Deposits (B2) (Nonriverine)  
☐ Drift Deposits (B3) (Nonriverine)  
☐ Surface Soil Cracks (B6)  
☐ Inundation Visible on Aerial Imagery (B7)  
☐ Water-Stained Leaves (B9)  
☐ Salt Crust (B11)  
☐ Biotic Crust (B12)  
☐ Aquatic Fauna (B13)  
☐ Hydrogen Sulfide Odor (C1)  
☐ Oxidized Rhizospheres along Living Roots (C3)  
☐ Presence of Reduced Iron (C4)  
☐ Recent Iron Reduction in Tilled Soils (C6)  
☐ Thin Muck Surface (C7)  
☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)  
☐ Sediment Deposits (B2) (Riverine)  
☐ Drift Deposits (B3) (Riverine)  
☐ Drainage Patterns (B10)  
☐ Dry-Season Water Table (C2)  
☐ Crayfish Burrows (C8)  
☐ Saturation Visible on Aerial Imag.(C9)  
☐ Shallow Aquitard (D3)  
☐ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_  
Water Table Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_  
Saturation Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_  
(includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

**Remarks:**

Damp only at 20 inches.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 6/6/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 8 Sampling Point: 16-W-201206061331  
 Investigators: Ron Kass Paul Dawson Section, Township, Range S 31 T 4 R 1  
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): Concave Slope(%) 0  
 Subregion (LRR): LRR D Lat: 41.0370962726 Long: -111.998146531 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Ironton silt loam, 0 to 1 percent slopes NWI Classification: PEMF  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes      No X (If No, explain in Remarks)  
 Are Vegetation     , Soil     , Hydrology     , significantly disturbed? Are "Normal Circumstances" present? Yes      No X  
 Are Vegetation     , Soil     , Hydrology X, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No <u>    </u> Hydric Soil Present? Yes <u>X</u> No <u>    </u> Wetland Hydrology Present? Yes <u>X</u> No <u>    </u>	Is the Sampled Area within a Wetland? Yes <u>X</u> No <u>    </u> Wetland ID: <u>16-IW-16</u>
---	--

Remarks:  
 Small isolated wetland depression in horse pasture, potentially caused by irrigation water becoming trapped against road fill to the southwest.

### VEGETATION— Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
<u>Tree Stratum</u>			
<u>Shrub Stratum</u>			
<u>Herb Stratum</u> (Plot size: <u>30 Ft</u> )			
Carex praegracilis	30	Y	FACW
Eleocharis palustris	25	Y	OBL
Poa pratensis	20	Y	FAC
Festuca pratensis	15	N	FACU
	90	=Total Cover	
<u>Vine Stratum</u>			

#### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 3 (A)  
 Total Number of Dominant Species Across all Strata: 3 (B)  
 Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

#### Prevalence Index Worksheet:

	Total % Cover of:	Multiply by:
OBL species	<u>25</u>	x 1 = <u>25</u>
FACW species	<u>30</u>	x 2 = <u>60</u>
FAC species	<u>20</u>	x 3 = <u>60</u>
FACU species	<u>15</u>	x 4 = <u>60</u>
UPL species	<u>0</u>	x 5 = <u>0</u>
Column Totals:	<u>90</u> (A)	<u>205</u> (B)

Prevalence Index = B/A = 2.28

#### Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
 Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No     

% Bare Ground in Herb Stratum 10 % Cover of Biotic Crust     

Remarks: (Include photo numbers here or on a separate sheet.)

Heavily grazed hydrophytic plant community.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		%	Redox Features				Texture	Remarks
	Color (moist)			Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 10	10YR	3 / 1	100					SILT LOAM	
10 to 18	10YR	5 / 1	90	Gley1 2.5/N	10	C	M	SILTY CLAY LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- ☐ Histosol (A1)  
☐ Histic Epipedon (A2)  
☐ Black Histic (A3)  
☐ Hydrogen Sulfide (A4)  
☐ Stratified Layers (A5) LRR C  
☐ 1 cm Muck (A9) LRR F D  
☒ Depleted Below Dark Surface (A11)  
☐ Thick Dark Surface (A12)  
☐ Sandy Mucky Mineral (S1)  
☐ Sandy Gleyed Matrix (S4)

- ☐ Sandy Redox (S5)  
☐ Stripped Matrix (S6)  
☐ Loamy Mucky Mineral (F1)  
☐ Loamy Gleyed Matrix (F2)  
☐ Depleted Matrix (F3)  
☐ Redox Dark Surface (F6)  
☐ Depleted Dark Surface (F7)  
☐ Redox Depressions (F8)  
☐ Vernal Pools (F9)

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)  
☐ 2 cm Muck (A10) (LRR B)  
☐ Reduced Vertic (F18)  
☐ Red Parent Material (TF2)  
☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes   X   No       

## Remarks:

Soil fits criteria for hydric indicator A11.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)  
☐ High Water Table (A2)  
☐ Saturation (A3)  
☐ Water Marks (B1) (Nonriverine)  
☐ Sediment Deposits (B2) (Nonriverine)  
☐ Drift Deposits (B3) (Nonriverine)  
☒ Surface Soil Cracks (B6)  
☐ Inundation Visible on Aerial Imagery (B7)  
☐ Water-Stained Leaves (B9)  
☐ Salt Crust (B11)  
☐ Biotic Crust (B12)  
☐ Aquatic Fauna (B13)  
☐ Hydrogen Sulfide Odor (C1)  
☐ Oxidized Rhizospheres along Living Roots (C3)  
☐ Presence of Reduced Iron (C4)  
☐ Recent Iron Reduction in Tilled Soils (C6)  
☐ Thin Muck Surface (C7)  
☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)  
☐ Sediment Deposits (B2) (Riverine)  
☐ Drift Deposits (B3) (Riverine)  
☒ Drainage Patterns (B10)  
☐ Dry-Season Water Table (C2)  
☐ Crayfish Burrows (C8)  
☐ Saturation Visible on Aerial Imag.(C9)  
☐ Shallow Aquitard (D3)  
☒ FAC-Neutral Test (D5)

**Field Observations:**Surface Water Present? Yes        No   X   Depth (inches): \_\_\_\_\_Water Table Present? Yes        No   X   Depth (inches): \_\_\_\_\_Saturation Present? Yes        No   X   Depth (inches): \_\_\_\_\_

(includes capillary fringe)

**Wetland Hydrology Present?** Yes   X   No       

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

Observed wetland hydrology indicators were soil cracks and drainage patterns.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 6/5/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 7 Sampling Point: 15-N-201206051010  
 Investigators: Trent Toler Section, Township, Range S 36 T 4 R 2  
 Landform (hillslope, terrace, etc.): Hill Slope Local Relief (concave, convex, none): None Slope(%) 2  
 Subregion (LRR): LRR D Lat: 41.0444064431 Long: -112.007148462 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Warm Springs fine sandy loam, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland?	Yes _____ No <u>X</u>
Hydric Soil Present?	Yes _____ No <u>X</u>		
Wetland Hydrology Present?	Yes _____ No <u>X</u>		Wetland ID: _____

Remarks:  
 Upland edge, mix of 3-square and pasture species. Recieves a lot of irrigation.

## VEGETATION— Use scientific names of plants.

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
<u>Festuca pratensis</u>	<u>30</u>	<u>Y</u>	<u>FACU</u>
<u>Trifolium repens</u>	<u>25</u>	<u>Y</u>	<u>FACU</u>
<u>Schoenoplectus pungens</u>	<u>20</u>	<u>N</u>	<u>OBL</u>
<u>Ambrosia artemisiifolia</u>	<u>15</u>	<u>N</u>	<u>FACU</u>
<u>Juncus arcticus</u>	<u>10</u>	<u>N</u>	<u>FACW</u>
<u>Poa pratensis</u>	<u>3</u>	<u>N</u>	<u>FAC</u>
<u>Thinopyrum ponticum</u>	<u>3</u>	<u>N</u>	<u>UPL</u>
	<u>106</u> =Total Cover		

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species  
That are OBL, FACW, or FAC: 0 (A)  
 Total Number of Dominant  
Species Across all Strata: 2 (B)  
 Percent of Dominant Species  
That are OBL, FACW, or FAC: 0.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>20</u>	x 1 = <u>20</u>
FACW species <u>10</u>	x 2 = <u>20</u>
FAC species <u>3</u>	x 3 = <u>9</u>
FACU species <u>70</u>	x 4 = <u>280</u>
UPL species <u>3</u>	x 5 = <u>15</u>
Column Totals: <u>106</u> (A)	<u>344</u> (B)
Prevalence Index = B/A= <u>3.25</u>	

### Hydrophytic Vegetation Indicators:

\_\_\_\_ Rapid Test for Hydrophytic Vegetation  
 \_\_\_\_ Dominance Test > 50%  
 \_\_\_\_ Prevalence Index ≤ 3.0  
 \_\_\_\_ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 \_\_\_\_ Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic  
Vegetation Present? Yes \_\_\_\_\_ No X

% Bare Ground in Herb Stratum 0 % Cover of Biotic Crust

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation is not hydrophytic.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 5	10YR	3.0 / 2	100				LOAM	Organic with dense roots
5 to 15	10YR	4.0 / 2	100				CLAY LOAM	
15 to 20	10YR	4.0 / 2	100				LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- ☐ Histosol (A1)  
☐ Histic Epipedon (A2)  
☐ Black Histic (A3)  
☐ Hydrogen Sulfide (A4)  
☐ Stratified Layers (A5) LRR C  
☐ 1 cm Muck (A9) LRR F D  
☐ Depleted Below Dark Surface (A11)  
☐ Thick Dark Surface (A12)  
☐ Sandy Mucky Mineral (S1)  
☐ Sandy Gleyed Matrix (S4)

- ☐ Sandy Redox (S5)  
☐ Stripped Matrix (S6)  
☐ Loamy Mucky Mineral (F1)  
☐ Loamy Gleyed Matrix (F2)  
☐ Depleted Matrix (F3)  
☐ Redox Dark Surface (F6)  
☐ Depleted Dark Surface (F7)  
☐ Redox Depressions (F8)  
☐ Vernal Pools (F9)

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)  
☐ 2 cm Muck (A10) (LRR B)  
☐ Reduced Vertic (F18)  
☐ Red Parent Material (TF2)  
☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No X

## Remarks:

Soil fails to indicate hydric conditions.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)  
☐ High Water Table (A2)  
☐ Saturation (A3)  
☐ Water Marks (B1) (Nonriverine)  
☐ Sediment Deposits (B2) (Nonriverine)  
☐ Drift Deposits (B3) (Nonriverine)  
☐ Surface Soil Cracks (B6)  
☐ Inundation Visible on Aerial Imagery (B7)  
☐ Water-Stained Leaves (B9)  
☐ Salt Crust (B11)  
☐ Biotic Crust (B12)  
☐ Aquatic Fauna (B13)  
☐ Hydrogen Sulfide Odor (C1)  
☐ Oxidized Rhizospheres along Living Roots (C3)  
☐ Presence of Reduced Iron (C4)  
☐ Recent Iron Reduction in Tilled Soils (C6)  
☐ Thin Muck Surface (C7)  
☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)  
☐ Sediment Deposits (B2) (Riverine)  
☐ Drift Deposits (B3) (Riverine)  
☐ Drainage Patterns (B10)  
☐ Dry-Season Water Table (C2)  
☐ Crayfish Burrows (C8)  
☐ Saturation Visible on Aerial Imag.(C9)  
☐ Shallow Aquitard (D3)  
☐ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_  
Water Table Present? Yes X No \_\_\_\_\_ Depth (inches): 18  
Saturation Present? Yes X No \_\_\_\_\_ Depth (inches): 15  
(includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

Evidence of occasional wetness from irrigation on surface.



# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 6/5/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 7 Sampling Point: 15-N-201206051409  
 Investigators: Trent Toler Section, Township, Range S 31 T 4 R 1  
 Landform (hillslope, terrace, etc.): Terrace Local Relief (concave, convex, none): None Slope(%) 1  
 Subregion (LRR): LRR D Lat: 41.0443792552 Long: -112.006636164 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Warm Springs fine sandy loam, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>X</u>
Hydric Soil Present?	Yes _____ No <u>X</u>	
Wetland Hydrology Present?	Yes _____ No <u>X</u>	
Wetland ID: _____		
Remarks: Upland pasture		

## VEGETATION— Use scientific names of plants.

	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
<u>Tree Stratum</u>			
<u>Shrub Stratum</u>			
<u>Herb Stratum</u> (Plot size: <u>30 Ft</u> )			
<u>Festuca pratensis</u>	<u>30</u>	<u>Y</u>	<u>FACU</u>
<u>Trifolium repens</u>	<u>30</u>	<u>Y</u>	<u>FACU</u>
<u>Ambrosia artemisiifolia</u>	<u>20</u>	<u>Y</u>	<u>FACU</u>
<u>Thinopyrum ponticum</u>	<u>10</u>	<u>N</u>	<u>UPL</u>
<u>Carex praegracilis</u>	<u>5</u>	<u>N</u>	<u>FACW</u>
<u>Juncus arcticus</u>	<u>5</u>	<u>N</u>	<u>FACW</u>
	<u>100</u>	<u>=Total Cover</u>	

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 0 (A)  
 Total Number of Dominant Species Across all Strata: 3 (B)  
 Percent of Dominant Species That are OBL, FACW, or FAC: 0.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>10</u>	x 2 = <u>20</u>
FAC species <u>0</u>	x 3 = <u>0</u>
FACU species <u>80</u>	x 4 = <u>320</u>
UPL species <u>10</u>	x 5 = <u>50</u>
Column Totals: <u>100</u> (A)	<u>390</u> (B)
Prevalence Index = B/A= <u>3.90</u>	

### Hydrophytic Vegetation Indicators:

\_\_\_\_ Rapid Test for Hydrophytic Vegetation  
 \_\_\_\_ Dominance Test > 50%  
 \_\_\_\_ Prevalence Index ≤ 3.0  
 \_\_\_\_ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 \_\_\_\_ Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes \_\_\_\_\_ No X

% Bare Ground in Herb Stratum 0 % Cover of Biotic Crust \_\_\_\_\_

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation is not hydrophytic.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 4	10YR	3.0/ 3					LOAMY SAND	
4 to 13	10YR	2.0/ 1					SILTY CLAY LOAM	
13 to 18	10YR	3.0/ 3					LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)           |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)       |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)   |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)   |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input type="checkbox"/> Depleted Matrix (F3)       |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)     |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)          |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |   |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- |   |
|---|
| <input type="checkbox"/> 1 cm Muck (A9) (LRR C)     |
| <input type="checkbox"/> 2 cm Muck (A10) (LRR B)    |
| <input type="checkbox"/> Reduced Vertic (F18)       |
| <input type="checkbox"/> Red Parent Material (TF2)  |
| <input type="checkbox"/> Other (Explain in Remarks) |

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No X

## Remarks:

Dark soils but no hydric indicators observed.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- |   |
|---|
| <input type="checkbox"/> Water Marks (B1) (Riverine)            |
| <input type="checkbox"/> Sediment Deposits (B2) (Riverine)      |
| <input type="checkbox"/> Drift Deposits (B3) (Riverine)         |
| <input type="checkbox"/> Drainage Patterns (B10)                |
| <input type="checkbox"/> Dry-Season Water Table (C2)            |
| <input type="checkbox"/> Crayfish Burrows (C8)                  |
| <input type="checkbox"/> Saturation Visible on Aerial Imag.(C9) |
| <input type="checkbox"/> Shallow Aquitard (D3)                  |
| <input type="checkbox"/> FAC-Neutral Test (D5)                  |

**Field Observations:**

Surface Water Present?	Yes _____ No <u>X</u>	Depth (inches):	__
Water Table Present?	Yes _____ No <u>X</u>	Depth (inches):	__
Saturation Present?	Yes <u>X</u> No _____	Depth (inches):	18

(includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

No hydrology indicators observed.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 6/6/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 7 Sampling Point: 15-N-201206061017  
 Investigators: Trent Toler Section, Township, Range S 31 T 4 R 1  
 Landform (hillslope, terrace, etc.): Terrace Local Relief (concave, convex, none): None Slope(%) 1  
 Subregion (LRR): LRR D Lat: 41.0440362416 Long: -112.006853609 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Warm Springs fine sandy loam, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> Wetland ID: _____
Hydric Soil Present?	Yes _____ No <u>X</u>	
Wetland Hydrology Present?	Yes _____ No <u>X</u>	

Remarks:  
 Mesic pasture next to large earthen canal is not a wetland.

## VEGETATION— Use scientific names of plants.

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
Trifolium repens	30	Y	FACU
Festuca pratensis	25	Y	FACU
Juncus arcticus	20	N	FACW
Ambrosia artemisiifolia	15	N	FACU
Carex praegracilis	10	N	FACW
Schoenoplectus pungens	5	N	OBL
Distichlis spicata	3	N	FAC
	108	=Total Cover	

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 2 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 0.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>5</u>	x 1 = <u>5</u>
FACW species <u>30</u>	x 2 = <u>60</u>
FAC species <u>3</u>	x 3 = <u>9</u>
FACU species <u>70</u>	x 4 = <u>280</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>108</u> (A)	<u>354</u> (B)

Prevalence Index = B/A = 3.28

### Hydrophytic Vegetation Indicators:

☐ Rapid Test for Hydrophytic Vegetation  
☐ Dominance Test > 50%  
☐ Prevalence Index ≤ 3.0  
☐ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
☐ Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes \_\_\_\_\_ No X

% Bare Ground in Herb Stratum 0 % Cover of Biotic Crust \_\_\_\_\_

Remarks: (Include photo numbers here or on a separate sheet.)

Mixed community not hydrophytic.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 2	10YR	4.0/ 2	100				LOAM	
2 to 14	10YR	3.0/ 2	100				SILTY CLAY LOAM	
14 to 19	10YR	3.0/ 2	70	Gley1 2.5/N	3	C	PL	SILT LOAM
19 to 19	10YR	5.0/ 2	25				SAND	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)           |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)       |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)   |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)   |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input type="checkbox"/> Depleted Matrix (F3)       |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)     |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)          |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |   |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- |   |
|---|
| <input type="checkbox"/> 1 cm Muck (A9) (LRR C)     |
| <input type="checkbox"/> 2 cm Muck (A10) (LRR B)    |
| <input type="checkbox"/> Reduced Vertic (F18)       |
| <input type="checkbox"/> Red Parent Material (TF2)  |
| <input type="checkbox"/> Other (Explain in Remarks) |

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No X

## Remarks:

Below 14 inches, thin layers of sand mixed in, possibly depositional events. Soil fails to indicate hydric conditions.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- |   |
|---|
| <input type="checkbox"/> Water Marks (B1) (Riverine)            |
| <input type="checkbox"/> Sediment Deposits (B2) (Riverine)      |
| <input type="checkbox"/> Drift Deposits (B3) (Riverine)         |
| <input type="checkbox"/> Drainage Patterns (B10)                |
| <input type="checkbox"/> Dry-Season Water Table (C2)            |
| <input type="checkbox"/> Crayfish Burrows (C8)                  |
| <input type="checkbox"/> Saturation Visible on Aerial Imag.(C9) |
| <input type="checkbox"/> Shallow Aquitard (D3)                  |
| <input type="checkbox"/> FAC-Neutral Test (D5)                  |

**Field Observations:**Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Water Table Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Saturation Present? Yes X No \_\_\_\_\_ Depth (inches): 19

(includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

Saturated only at 19 inches.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 6/6/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 7 Sampling Point: 15-N-201206061329  
 Investigators: Trent Toler Section, Township, Range S 31 T 4 R 1  
 Landform (hillslope, terrace, etc.): Terrace Local Relief (concave, convex, none): None Slope(%) 2  
 Subregion (LRR): LRR D Lat: 41.0440020994 Long: -112.004324931 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Warm Springs fine sandy loam, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	Is the Sampled Area within a Wetland? Yes _____ No <u>X</u>
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	
Wetland ID: _____	

Remarks:  
 Mesic pasture edge, crop fields upslope, rush wetland downslope.

## VEGETATION— Use scientific names of plants.

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
Juncus arcticus	30	Y	FACW
Elymus repens	20	Y	FAC
Atriplex micrantha	15	Y	UPL
Festuca pratensis	15	Y	FACU
Hordeum jubatum	15	Y	FAC
Chenopodium album	5	N	FACU
Distichlis spicata	5	N	FAC
	105	=Total Cover	

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across all Strata: 5 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 60.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>30</u>	x 2 = <u>60</u>
FAC species <u>40</u>	x 3 = <u>120</u>
FACU species <u>20</u>	x 4 = <u>80</u>
UPL species <u>15</u>	x 5 = <u>75</u>
Column Totals: <u>105</u> (A)	<u>335</u> (B)

Prevalence Index = B/A = 3.19

### Hydrophytic Vegetation Indicators:

\_\_\_\_ Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
 \_\_\_\_ Prevalence Index ≤ 3.0  
 \_\_\_\_ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 \_\_\_\_ Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No \_\_\_\_\_

% Bare Ground in Herb Stratum 0 % Cover of Biotic Crust \_\_\_\_\_

Remarks: (Include photo numbers here or on a separate sheet.)

Mostly FAC vegetation and Juncus.



**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix			Redox Features				Texture	Remarks
	Color (moist)		%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 8	10YR	4.0 / 2	100					SANDY LOAM	
8 to 11	10YR	3.0 / 2	100					SANDY CLAY LOAM	
11 to 15	10YR	4.0 / 3	100					LOAMY SAND	
15 to 19	10YR	3.0 / 2	100					SANDY CLAY LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)           |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)       |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)   |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)   |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input type="checkbox"/> Depleted Matrix (F3)       |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)     |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)          |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |   |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- |   |
|---|
| <input type="checkbox"/> 1 cm Muck (A9) (LRR C)     |
| <input type="checkbox"/> 2 cm Muck (A10) (LRR B)    |
| <input type="checkbox"/> Reduced Vertic (F18)       |
| <input type="checkbox"/> Red Parent Material (TF2)  |
| <input type="checkbox"/> Other (Explain in Remarks) |

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No X

## Remarks:

Mostly dark but not saturated below 8 in, except for 11-15 where sand + charcol from ag fields upslope

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- |   |
|---|
| <input type="checkbox"/> Water Marks (B1) (Riverine)            |
| <input type="checkbox"/> Sediment Deposits (B2) (Riverine)      |
| <input type="checkbox"/> Drift Deposits (B3) (Riverine)         |
| <input type="checkbox"/> Drainage Patterns (B10)                |
| <input type="checkbox"/> Dry-Season Water Table (C2)            |
| <input type="checkbox"/> Crayfish Burrows (C8)                  |
| <input type="checkbox"/> Saturation Visible on Aerial Imag.(C9) |
| <input type="checkbox"/> Shallow Aquitard (D3)                  |
| <input type="checkbox"/> FAC-Neutral Test (D5)                  |

**Field Observations:**Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Water Table Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Saturation Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_

(includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

No hydrology indicators observed.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 7/18/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 7 Sampling Point: 15-N-201207181342  
 Investigators: Donovan Gross Mike Perkins Section, Township, Range S 36 T 4 R 2  
 Landform (hillslope, terrace, etc.): Terrace Local Relief (concave, convex, none): Convex Slope(%) 2  
 Subregion (LRR): LRR D Lat: 41.0448961654 Long: -112.008096803 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Warm Springs fine sandy loam, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> Wetland ID: _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks:  
 Sample point suggests this irrigated area is not a wetland.

## VEGETATION— Use scientific names of plants.

**Absolute % Cover** **Dominant Species** **Indicator Status**

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

Eleocharis palustris	20	Y	OBL
Poa secunda	15	Y	FACU
Schoenoplectus pungens	15	Y	OBL
Trifolium fragiferum	15	Y	FACU
Poa pratensis	5	N	FAC
	70	=Total Cover	

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 2 (A)  
 Total Number of Dominant Species Across all Strata: 4 (B)  
 Percent of Dominant Species That are OBL, FACW, or FAC: 50.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>35</u>	x 1 = <u>35</u>
FACW species <u>0</u>	x 2 = <u>0</u>
FAC species <u>5</u>	x 3 = <u>15</u>
FACU species <u>30</u>	x 4 = <u>120</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>70</u> (A)	<u>170</u> (B)

Prevalence Index = B/A = 2.43

### Hydrophytic Vegetation Indicators:

\_\_\_\_ Rapid Test for Hydrophytic Vegetation  
 \_\_\_\_ Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
 \_\_\_\_ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 \_\_\_\_ Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No \_\_\_\_\_

% Bare Ground in Herb Stratum 5 % Cover of Biotic Crust \_\_\_\_\_

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation is hydrophytic.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)**

Depth (inches)	Matrix			Redox Features				Texture	Remarks
	Color (moist)		%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 11	10YR	3.0/ 1	90	10YR 5/2	10	D	M	SILTY CLAY	
11 to 18	10YR	4.0/ 2	100					SANDY CLAY	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- ☐ Histosol (A1)  
☐ Histic Epipedon (A2)  
☐ Black Histic (A3)  
☐ Hydrogen Sulfide (A4)  
☐ Stratified Layers (A5) LRR C  
☐ 1 cm Muck (A9) LRR F D  
☐ Depleted Below Dark Surface (A11)  
☐ Thick Dark Surface (A12)  
☐ Sandy Mucky Mineral (S1)  
☐ Sandy Gleyed Matrix (S4)

- ☐ Sandy Redox (S5)  
☐ Stripped Matrix (S6)  
☐ Loamy Mucky Mineral (F1)  
☐ Loamy Gleyed Matrix (F2)  
☐ Depleted Matrix (F3)  
☐ Redox Dark Surface (F6)  
☐ Depleted Dark Surface (F7)  
☐ Redox Depressions (F8)  
☐ Vernal Pools (F9)

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)  
☐ 2 cm Muck (A10) (LRR B)  
☐ Reduced Vertic (F18)  
☐ Red Parent Material (TF2)  
☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No X

## Remarks:

Soil fails to indicate hydric conditions.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)  
☐ High Water Table (A2)  
☒ Saturation (A3)  
☐ Water Marks (B1) (Nonriverine)  
☐ Sediment Deposits (B2) (Nonriverine)  
☐ Drift Deposits (B3) (Nonriverine)  
☐ Surface Soil Cracks (B6)  
☐ Inundation Visible on Aerial Imagery (B7)  
☐ Water-Stained Leaves (B9)  
☐ Salt Crust (B11)  
☐ Biotic Crust (B12)  
☐ Aquatic Fauna (B13)  
☐ Hydrogen Sulfide Odor (C1)  
☐ Oxidized Rhizospheres along Living Roots (C3)  
☐ Presence of Reduced Iron (C4)  
☐ Recent Iron Reduction in Tilled Soils (C6)  
☐ Thin Muck Surface (C7)  
☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)  
☐ Sediment Deposits (B2) (Riverine)  
☐ Drift Deposits (B3) (Riverine)  
☐ Drainage Patterns (B10)  
☐ Dry-Season Water Table (C2)  
☐ Crayfish Burrows (C8)  
☐ Saturation Visible on Aerial Imag.(C9)  
☐ Shallow Aquitard (D3)  
☐ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_  
Water Table Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_  
Saturation Present? Yes X No \_\_\_\_\_ Depth (inches): 11  
(includes capillary fringe)

**Wetland Hydrology Present?** Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

Wetland hydrology present.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 7/18/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 7 Sampling Point: 15-N-201207181516  
 Investigators: Donovan Gross Mike Perkins Section, Township, Range S 25 T 4 R 2  
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): Convex Slope(%) 1  
 Subregion (LRR): LRR D Lat: 41.0462888034 Long: -112.011049334 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Warm Springs fine sandy loam, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland?	Yes _____ No <u>X</u>
Hydric Soil Present?	Yes _____ No <u>X</u>		
Wetland Hydrology Present?	Yes _____ No <u>X</u>		Wetland ID: _____

Remarks:  
 'Out' point in cropland. No soil data collected.

## VEGETATION— Use scientific names of plants.

**Absolute  
% Cover** **Dominant  
Species** **Indicator  
Status**

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

Helianthus annuus	40	Y	FACU
Zea mays L.	20	Y	UPL
Atriplex micrantha	5	N	UPL
Festuca pratensis	5	N	FACU
	70	=Total Cover	

### Vine Stratum

## Dominance Test Worksheet:

Number of Dominant Species  
That are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant  
Species Across all Strata: 2 (B)

Percent of Dominant Species  
That are OBL, FACW, or FAC: 0.0% (A/B)

## Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>0</u>	x 2 = <u>0</u>
FAC species <u>0</u>	x 3 = <u>0</u>
FACU species <u>45</u>	x 4 = <u>180</u>
UPL species <u>25</u>	x 5 = <u>125</u>
Column Totals: <u>70</u> (A)	<u>305</u> (B)

Prevalence Index = B/A= 4.36

## Hydrophytic Vegetation Indicators:

\_\_\_\_\_ Rapid Test for Hydrophytic Vegetation  
 \_\_\_\_\_ Dominance Test > 50%  
 \_\_\_\_\_ Prevalence Index ≤ 3.0  
 \_\_\_\_\_ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 \_\_\_\_\_ Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic  
Vegetation Present?** Yes \_\_\_\_\_ No X

% Bare Ground in Herb Stratum 10 % Cover of Biotic Crust

Remarks: (Include photo numbers here or on a separate sheet.)

Corn field with other weedy species.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)           |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)       |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)   |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)   |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input type="checkbox"/> Depleted Matrix (F3)       |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)     |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)          |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |   |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)
- ☐ 2 cm Muck (A10) (LRR B)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No X**Remarks:**

Data point in active cropland, no soil data collected.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)
- ☐ Sediment Deposits (B2) (Riverine)
- ☐ Drift Deposits (B3) (Riverine)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

**Field Observations:**Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Water Table Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Saturation Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_

(includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

**Remarks:**

No hydrology indicators observed in corn field.



# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 6/5/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 7 Sampling Point: 15-W-201206050923  
 Investigators: Trent Toler Section, Township, Range S 36 T 4 R 2  
 Landform (hillslope, terrace, etc.): Hill Slope Local Relief (concave, convex, none): None Slope(%) 2  
 Subregion (LRR): LRR D Lat: 41.0443610799 Long: -112.007212169 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Warm Springs fine sandy loam, 0 to 1 percent slopes NWI Classification: PEMB  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No        (If No, explain in Remarks)  
 Are Vegetation       , Soil       , Hydrology       , significantly disturbed? Are "Normal Circumstances" present? Yes X No         
 Are Vegetation       , Soil       , Hydrology       , naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No <u>      </u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No <u>      </u> <b>Wetland ID:</b> <u>15-W-76</u>
Hydric Soil Present? Yes <u>X</u> No <u>      </u>	
Wetland Hydrology Present? Yes <u>X</u> No <u>      </u>	

Remarks:  
 Emergent marsh that receives irrigation.

## VEGETATION— Use scientific names of plants.

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
Schoenoplectus pungens	75	Y	OBL
Poa pratensis	15	N	FAC
Nasturtium officinale	10	N	OBL
Solanum dulcamara	3	N	FAC
	103	=Total Cover	

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across all Strata: 1 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>85</u>	x 1 = <u>85</u>
FACW species <u>0</u>	x 2 = <u>0</u>
FAC species <u>18</u>	x 3 = <u>54</u>
FACU species <u>0</u>	x 4 = <u>0</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>103</u> (A)	<u>139</u> (B)

Prevalence Index = B/A = 1.35

### Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
 Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No       

% Bare Ground in Herb Stratum 0 % Cover of Biotic Crust

Remarks: (Include photo numbers here or on a separate sheet.)

Mostly 3-square, Poa invading from uplands and on high spots.

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 4	10YR	3.0 / 2					SILT LOAM	
4 to 14	10YR	3.0 / 1					CLAY LOAM	
14 to 18	10YR	2.0 / 2					LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.      <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators:**

☐ Histosol (A1)☐ Histic Epipedon (A2)☐ Black Histic (A3)☒ Hydrogen Sulfide (A4)☐ Stratified Layers (A5) LRR C☐ 1 cm Muck (A9) LRR F D☐ Depleted Below Dark Surface (A11)☐ Thick Dark Surface (A12)☐ Sandy Mucky Mineral (S1)☐ Sandy Gleyed Matrix (S4)

☐ Sandy Redox (S5)☐ Stripped Matrix (S6)☐ Loamy Mucky Mineral (F1)☐ Loamy Gleyed Matrix (F2)☐ Depleted Matrix (F3)☐ Redox Dark Surface (F6)☐ Depleted Dark Surface (F7)☐ Redox Depressions (F8)☐ Vernal Pools (F9)

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

☐ 1 cm Muck (A9) (LRR C)☐ 2 cm Muck (A10) (LRR B)☐ Reduced Vertic (F18)☐ Red Parent Material (TF2)☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: Depth (inches):

Hydric Soil Present?

Yes ☒ No ☐

Remarks:

Hydrogen Sulfide odor there but not real strong, otherwise just dark soils.

HYDROLOGY

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

☐ Surface Water (A1)☒ High Water Table (A2)☒ Saturation (A3)☐ Water Marks (B1) (Nonriverine)☐ Sediment Deposits (B2) (Nonriverine)☐ Drift Deposits (B3) (Nonriverine)☐ Surface Soil Cracks (B6)☐ Inundation Visible on Aerial Imagery (B7)☐ Water-Stained Leaves (B9)

☐ Salt Crust (B11)☐ Biotic Crust (B12)☐ Aquatic Fauna (B13)☐ Hydrogen Sulfide Odor (C1)☐ Oxidized Rhizospheres along Living Roots (C3)☐ Presence of Reduced Iron (C4)☐ Recent Iron Reduction in Tilled Soils (C6)☐ Thin Muck Surface (C7)☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

☐ Water Marks (B1) (Riverine)☐ Sediment Deposits (B2) (Riverine)☐ Drift Deposits (B3) (Riverine)☐ Drainage Patterns (B10)☐ Dry-Season Water Table (C2)☐ Crayfish Burrows (C8)☐ Saturation Visible on Aerial Imag.(C9)☐ Shallow Aquitard (D3)☒ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present?

Yes ☐ No ☒

Depth (inches):

Water Table Present?

Yes ☒ No ☐

Depth (inches):

Saturation Present?

Yes ☒ No ☐

Depth (inches):

(includes capillary fringe)

Wetland Hydrology Present?

Yes ☒ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Surface saturation might be from irrigation tail water coming from up slope; uplands wet too.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 6/5/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 7 Sampling Point: 15-W-201206051315  
 Investigators: Trent Toler Section, Township, Range S 31 T 4 R 1  
 Landform (hillslope, terrace, etc.): Basin Local Relief (concave, convex, none): Concave Slope(%) 1  
 Subregion (LRR): LRR D Lat: 41.0443762389 Long: -112.006599005 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Warm Springs fine sandy loam, 0 to 1 percent slopes NWI Classification: PEMC  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No        (If No, explain in Remarks)  
 Are Vegetation       , Soil       , Hydrology       , significantly disturbed? Are "Normal Circumstances" present? Yes        No X  
 Are Vegetation       , Soil       , Hydrology X, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No <u>      </u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No <u>      </u> Wetland ID: <u>15-W-98</u>
Hydric Soil Present? Yes <u>X</u> No <u>      </u>	
Wetland Hydrology Present? Yes <u>X</u> No <u>      </u>	

Remarks:  
 Low depression, probably gets irrigation overflow or other runoff.

VEGETATION— Use scientific names of plants.	Absolute % Cover	Dominant Species	Indicator Status	Dominance Test Worksheet:																	
<u>Tree Stratum</u>				Number of Dominant Species That are OBL, FACW, or FAC: <u>1</u> (A)																	
<u>Shrub Stratum</u>				Total Number of Dominant Species Across all Strata: <u>2</u> (B)																	
<u>Herb Stratum</u> (Plot size: <u>30 Ft</u> )				Percent of Dominant Species That are OBL, FACW, or FAC: <u>50.0%</u> (A/B)																	
Eleocharis palustris	40	Y	OBL	<b>Prevalence Index Worksheet:</b> <table border="1"> <thead> <tr> <th>Total % Cover of:</th> <th>Multiply by:</th> </tr> </thead> <tbody> <tr> <td>OBL species <u>43</u></td> <td>x 1 = <u>43</u></td> </tr> <tr> <td>FACW species <u>20</u></td> <td>x 2 = <u>40</u></td> </tr> <tr> <td>FAC species <u>10</u></td> <td>x 3 = <u>30</u></td> </tr> <tr> <td>FACU species <u>10</u></td> <td>x 4 = <u>40</u></td> </tr> <tr> <td>UPL species <u>20</u></td> <td>x 5 = <u>100</u></td> </tr> <tr> <td>Column Totals: <u>103</u> (A)</td> <td><u>253</u> (B)</td> </tr> <tr> <td colspan="2">Prevalence Index = B/A= <u>2.46</u></td> </tr> </tbody> </table>		Total % Cover of:	Multiply by:	OBL species <u>43</u>	x 1 = <u>43</u>	FACW species <u>20</u>	x 2 = <u>40</u>	FAC species <u>10</u>	x 3 = <u>30</u>	FACU species <u>10</u>	x 4 = <u>40</u>	UPL species <u>20</u>	x 5 = <u>100</u>	Column Totals: <u>103</u> (A)	<u>253</u> (B)	Prevalence Index = B/A= <u>2.46</u>	
Total % Cover of:	Multiply by:																				
OBL species <u>43</u>	x 1 = <u>43</u>																				
FACW species <u>20</u>	x 2 = <u>40</u>																				
FAC species <u>10</u>	x 3 = <u>30</u>																				
FACU species <u>10</u>	x 4 = <u>40</u>																				
UPL species <u>20</u>	x 5 = <u>100</u>																				
Column Totals: <u>103</u> (A)	<u>253</u> (B)																				
Prevalence Index = B/A= <u>2.46</u>																					
Atriplex micrantha	20	Y	UPL																		
Festuca pratensis	10	N	FACU																		
Juncus arcticus	10	N	FACW																		
Puccinellia nuttalliana	10	N	FACW																		
Xanthium strumarium	10	N	FAC																		
Schoenoplectus pungens	3	N	OBL																		
	103 =Total Cover																				
<u>Vine Stratum</u>				<b>Hydrophytic Vegetation Indicators:</b> <u>      </u> Rapid Test for Hydrophytic Vegetation <u>      </u> Dominance Test > 50% <u>X</u> Prevalence Index ≤ 3.0 <u>      </u> Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet) <u>      </u> Problematic Hydrophytic Vegetation (Explain) Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																	
% Bare Ground in Herb Stratum <u>10</u>	% Cover of Biotic Crust			<b>Hydrophytic Vegetation Present?</b> Yes <u>X</u> No <u>      </u>																	

Remarks: (Include photo numbers here or on a separate sheet.)  
 Vegetation is hydrophytic.

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix			Redox Features				Texture	Remarks
	Color (moist)		%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 2	10YR	3.0/ 2	100					SILTY CLAY LOAM	
2 to 12	10YR	3.0/ 1	95	Gley1 2.5/N	5	C	PL	CLAY LOAM	
12 to 20	10YR	5.0/ 1	100	Gley1 2.5/N	3	C	PL	LOAMY SAND	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators:**

☐ Histosol (A1)☐ Histic Epipedon (A2)☐ Black Histic (A3)☐ Hydrogen Sulfide (A4)☐ Stratified Layers (A5) LRR C☐ 1 cm Muck (A9) LRR F D☐ Depleted Below Dark Surface (A11)☐ Thick Dark Surface (A12)☐ Sandy Mucky Mineral (S1)☐ Sandy Gleyed Matrix (S4)☐ Sandy Redox (S5)☐ Stripped Matrix (S6)☐ Loamy Mucky Mineral (F1)☐ Loamy Gleyed Matrix (F2)☐ Depleted Matrix (F3)☒ Redox Dark Surface (F6)☐ Depleted Dark Surface (F7)☐ Redox Depressions (F8)☐ Vernal Pools (F9)

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

☐ 1 cm Muck (A9) (LRR C)☐ 2 cm Muck (A10) (LRR B)☐ Reduced Vertic (F18)☐ Red Parent Material (TF2)☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: Depth (inches):

**Hydric Soil Present?** Yes ☒ No ☐

Remarks:

Clay loam to 12 in, then very sandy. Soil meets criteria for hydric indicator F6.

HYDROLOGY

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

☐ Surface Water (A1)☐ High Water Table (A2)☒ Saturation (A3)☐ Water Marks (B1) (Nonriverine)☐ Sediment Deposits (B2) (Nonriverine)☐ Drift Deposits (B3) (Nonriverine)☐ Surface Soil Cracks (B6)☐ Inundation Visible on Aerial Imagery (B7)☐ Water-Stained Leaves (B9)☐ Salt Crust (B11)☐ Biotic Crust (B12)☐ Aquatic Fauna (B13)☐ Hydrogen Sulfide Odor (C1)☐ Oxidized Rhizospheres along Living Roots (C3)☐ Presence of Reduced Iron (C4)☐ Recent Iron Reduction in Tilled Soils (C6)☐ Thin Muck Surface (C7)☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

☐ Water Marks (B1) (Riverine)☐ Sediment Deposits (B2) (Riverine)☐ Drift Deposits (B3) (Riverine)☐ Drainage Patterns (B10)☐ Dry-Season Water Table (C2)☐ Crayfish Burrows (C8)☐ Saturation Visible on Aerial Imag.(C9)☐ Shallow Aquitard (D3)☒ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present? Yes ☐ No ☒ Depth (inches): 

--

Water Table Present? Yes ☒ No ☐ Depth (inches): 

14

Saturation Present? Yes ☒ No ☐ Depth (inches): 

12

(includes capillary fringe)

**Wetland Hydrology Present?** Yes ☒ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Looks like an area water sits, possibly irrigation overflow or runoff.

US Army Corps of Engineers

HDR

Arid West – Version 2.0

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 6/6/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 7 Sampling Point: 15-W-201206061059  
 Investigators: Trent Toler Section, Township, Range S 31 T 4 R 1  
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): Concave Slope(%) 1  
 Subregion (LRR): LRR D Lat: 41.0439665706 Long: -112.006910492 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Warm Springs fine sandy loam, 0 to 1 percent slopes NWI Classification: PEMC  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No        (If No, explain in Remarks)  
 Are Vegetation       , Soil       , Hydrology       , significantly disturbed? Are "Normal Circumstances" present? Yes        No X  
 Are Vegetation       , Soil       , Hydrology       , naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No <u>      </u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No <u>      </u> Wetland ID: <u>15-W-12</u>
Hydric Soil Present? Yes <u>X</u> No <u>      </u>	
Wetland Hydrology Present? Yes <u>X</u> No <u>      </u>	

Remarks:  
 Wet meadow with a patchy mix of spp. Gently slopes towards GSL.

## VEGETATION— Use scientific names of plants.

	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
<u>Tree Stratum</u>			
<u>Shrub Stratum</u>			
<u>Herb Stratum</u> (Plot size: <u>30 Ft</u> )			
Juncus arcticus	30	Y	FACW
Hordeum jubatum	20	Y	FAC
Carex praegracilis	15	Y	FACW
Distichlis spicata	15	Y	FAC
Festuca pratensis	10	N	FACU
Schoenoplectus pungens	10	N	OBL
	100	=Total Cover	

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 4 (A)  
 Total Number of Dominant Species Across all Strata: 4 (B)  
 Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>10</u>	x 1 = <u>10</u>
FACW species <u>45</u>	x 2 = <u>90</u>
FAC species <u>35</u>	x 3 = <u>105</u>
FACU species <u>10</u>	x 4 = <u>40</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>100</u> (A)	<u>245</u> (B)

Prevalence Index = B/A = 2.45

### Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
 Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No       

% Bare Ground in Herb Stratum 0 % Cover of Biotic Crust

Remarks: (Include photo numbers here or on a separate sheet.)

Patchy mix of species, but most FAC or better.



**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 1	10YR	4.0/ 2					SILTY CLAY LOAM	
1 to 8	10YR	3.0/ 2	Gley1 2.5/N	10	C	PL	SILTY CLAY	Mn
8 to 15	10YR	3.0/ 2					SILTY CLAY	
15 to 19	10YR	4.0/ 2					CLAY LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)                   |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)               |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)           |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)           |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input type="checkbox"/> Depleted Matrix (F3)               |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input checked="" type="checkbox"/> Redox Dark Surface (F6) |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7)         |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)             |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)                  |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |   |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- |   |
|---|
| <input type="checkbox"/> 1 cm Muck (A9) (LRR C)     |
| <input type="checkbox"/> 2 cm Muck (A10) (LRR B)    |
| <input type="checkbox"/> Reduced Vertic (F18)       |
| <input type="checkbox"/> Red Parent Material (TF2)  |
| <input type="checkbox"/> Other (Explain in Remarks) |

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes X No \_\_\_\_\_

## Remarks:

Soil profile meets F6 indicator. 1-15 inches is same matrix soil, but only manganese areas in 1-8 inches.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                           | <input checked="" type="checkbox"/> Aquatic Fauna (B13)                |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- |   |
|---|
| <input type="checkbox"/> Water Marks (B1) (Riverine)            |
| <input type="checkbox"/> Sediment Deposits (B2) (Riverine)      |
| <input type="checkbox"/> Drift Deposits (B3) (Riverine)         |
| <input type="checkbox"/> Drainage Patterns (B10)                |
| <input type="checkbox"/> Dry-Season Water Table (C2)            |
| <input type="checkbox"/> Crayfish Burrows (C8)                  |
| <input type="checkbox"/> Saturation Visible on Aerial Imag.(C9) |
| <input type="checkbox"/> Shallow Aquitard (D3)                  |
| <input checked="" type="checkbox"/> FAC-Neutral Test (D5)       |

**Field Observations:**Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Water Table Present? Yes X No \_\_\_\_\_ Depth (inches): 18Saturation Present? Yes X No \_\_\_\_\_ Depth (inches): 15

(includes capillary fringe)

**Wetland Hydrology Present?** Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

Clay layer may not be absorbing groundwater. Area likely well irrigated or receives lots of tail water.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 6/6/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 7 Sampling Point: 15-W-201206061451  
 Investigators: Trent Toler Mike Perkins Section, Township, Range S 31 T 4 R 1  
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): None Slope(%) 1  
 Subregion (LRR): LRR D Lat: 41.0438764803 Long: -112.004463956 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Warm Springs fine sandy loam, 0 to 1 percent slopes NWI Classification: PEMF  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No        (If No, explain in Remarks)  
 Are Vegetation       , Soil       , Hydrology       , significantly disturbed? Are "Normal Circumstances" present? Yes        No X  
 Are Vegetation       , Soil       , Hydrology       , naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No <u>      </u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No <u>      </u> <b>Wetland ID:</b> <u>15-W-13</u>
Hydric Soil Present? Yes <u>X</u> No <u>      </u>	
Wetland Hydrology Present? Yes <u>X</u> No <u>      </u>	

Remarks:  
 Very slight gradient from upland to wetland. Much wetter looking, just down slope.

## VEGETATION— Use scientific names of plants.

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
Juncus arcticus	70	Y	FACW
Carex praegracilis	15	N	FACW
Hordeum jubatum	10	N	FAC
Distichlis spicata	5	N	FAC
	100	=Total Cover	

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across all Strata: 1 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>85</u>	x 2 = <u>170</u>
FAC species <u>15</u>	x 3 = <u>45</u>
FACU species <u>0</u>	x 4 = <u>0</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>100</u> (A)	<u>215</u> (B)

Prevalence Index = B/A = 2.15

### Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
       Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
       Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No       

% Bare Ground in Herb Stratum 0 % Cover of Biotic Crust       

Remarks: (Include photo numbers here or on a separate sheet.)

Juncus dominated area is hydrophytic.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 6	10YR 4.0/ 2	100					SILTY CLAY LOAM	
6 to 9	10YR 3.0/ 1	70	10YR 6/2	30	D	M	SANDY CLAY LOAM	
9 to 19	7.5YR 3.0/ 2	100					SANDY CLAY LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |  |
|--|--|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)                      |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)                  |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)              |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)              |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input type="checkbox"/> Depleted Matrix (F3)                  |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)               |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input checked="" type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)                |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)                     |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |  |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- |   |
|---|
| <input type="checkbox"/> 1 cm Muck (A9) (LRR C)     |
| <input type="checkbox"/> 2 cm Muck (A10) (LRR B)    |
| <input type="checkbox"/> Reduced Vertic (F18)       |
| <input type="checkbox"/> Red Parent Material (TF2)  |
| <input type="checkbox"/> Other (Explain in Remarks) |

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes X No \_\_\_\_\_

## Remarks:

Borderline hydric soils, may not fit F7 completely.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                           | <input checked="" type="checkbox"/> Aquatic Fauna (B13)                |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- |   |
|---|
| <input type="checkbox"/> Water Marks (B1) (Riverine)            |
| <input type="checkbox"/> Sediment Deposits (B2) (Riverine)      |
| <input type="checkbox"/> Drift Deposits (B3) (Riverine)         |
| <input type="checkbox"/> Drainage Patterns (B10)                |
| <input type="checkbox"/> Dry-Season Water Table (C2)            |
| <input type="checkbox"/> Crayfish Burrows (C8)                  |
| <input type="checkbox"/> Saturation Visible on Aerial Imag.(C9) |
| <input type="checkbox"/> Shallow Aquitard (D3)                  |
| <input checked="" type="checkbox"/> FAC-Neutral Test (D5)       |

**Field Observations:**

Surface Water Present?	Yes _____ No <u>X</u>	Depth (inches): _____
Water Table Present?	Yes _____ No <u>X</u>	Depth (inches): _____
Saturation Present?	Yes <u>X</u> No _____	Depth (inches): <u>14</u>

(includes capillary fringe)

**Wetland Hydrology Present?** Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

Sampling point meets criteria for wetland hydrology.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 7/18/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 7 Sampling Point: 15-W-201207181433  
 Investigators: Donovan Gross Mike Perkins Section, Township, Range S 36 T 4 R 2  
 Landform (hillslope, terrace, etc.): Basin Local Relief (concave, convex, none): None Slope(%) 2  
 Subregion (LRR): LRR D Lat: 41.045514683 Long: -112.009496663 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Warm Springs fine sandy loam, 0 to 1 percent slopes NWI Classification: PEMA  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No        (If No, explain in Remarks)  
 Are Vegetation       , Soil       , Hydrology       , significantly disturbed? Are "Normal Circumstances" present? Yes X No         
 Are Vegetation       , Soil       , Hydrology       , naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No <u>      </u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No <u>      </u> <b>Wetland ID:</b> <u>15-W-75</u>
Hydric Soil Present? Yes <u>X</u> No <u>      </u>	
Wetland Hydrology Present? Yes <u>X</u> No <u>      </u>	

Remarks:  
 Wetland data point.

## VEGETATION— Use scientific names of plants.

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
Schoenoplectus pungens	25	Y	OBL
Trifolium fragiferum	15	Y	FACU
Carex nebrascensis	10	N	OBL
Elymus repens	10	N	FAC
Hordeum jubatum	10	N	FAC
Phalaris arundinacea	10	N	FACW
	80	=Total Cover	

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 1 (A)  
 Total Number of Dominant Species Across all Strata: 2 (B)  
 Percent of Dominant Species That are OBL, FACW, or FAC: 50.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>35</u>	x 1 = <u>35</u>
FACW species <u>10</u>	x 2 = <u>20</u>
FAC species <u>20</u>	x 3 = <u>60</u>
FACU species <u>15</u>	x 4 = <u>60</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>80</u> (A)	<u>175</u> (B)

Prevalence Index = B/A = 2.19

### Hydrophytic Vegetation Indicators:

       Rapid Test for Hydrophytic Vegetation  
       Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
       Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
       Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

### Hydrophytic Vegetation Present?

Yes X No       

% Bare Ground in Herb Stratum 2 % Cover of Biotic Crust

Remarks: (Include photo numbers here or on a separate sheet.)

Unidentified grass 10% - tested Prevalence Index to show that vegetation is hydroptic regardless of the indicator status of this grass.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 18	10YR	3.0 / 2	80	Gley1 2.5/N	20	C	M	SILTY CLAY LOAM

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)                   |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)               |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)           |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)           |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input type="checkbox"/> Depleted Matrix (F3)               |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input checked="" type="checkbox"/> Redox Dark Surface (F6) |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7)         |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)             |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)                  |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |   |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)  
☐ 2 cm Muck (A10) (LRR B)  
☐ Reduced Vertic (F18)  
☐ Red Parent Material (TF2)  
☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes X No \_\_\_\_\_

## Remarks:

Soil meets criteria for hydric indicator F6.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |   |
|--|---|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)   |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                                       |
| <input checked="" type="checkbox"/> Saturation (A3)                | <input type="checkbox"/> Aquatic Fauna (B13)                                      |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                               |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input checked="" type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                            |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)               |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                                   |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                               |

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)  
☐ Sediment Deposits (B2) (Riverine)  
☐ Drift Deposits (B3) (Riverine)  
☐ Drainage Patterns (B10)  
☐ Dry-Season Water Table (C2)  
☐ Crayfish Burrows (C8)  
☐ Saturation Visible on Aerial Imag.(C9)  
☐ Shallow Aquitard (D3)  
☒ FAC-Neutral Test (D5)

**Field Observations:**Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Water Table Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Saturation Present? Yes X No \_\_\_\_\_ Depth (inches): 0

(includes capillary fringe)

**Wetland Hydrology Present?** Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

Wetland hydrology present.



# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 7/18/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 7 Sampling Point: 15-W-201207181503  
 Investigators: Donovan Gross Mike Perkins Section, Township, Range S 25 T 4 R 2  
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): Convex Slope(%) 1  
 Subregion (LRR): LRR D Lat: 41.0460818102 Long: -112.01137465 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Ford loam, 0 to 1 percent slopes NWI Classification: PEMC

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No        (If No, explain in Remarks)  
 Are Vegetation       , Soil       , Hydrology       , significantly disturbed? Are "Normal Circumstances" present? Yes        No X  
 Are Vegetation       , Soil       , Hydrology X, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No <u>      </u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No <u>      </u> <b>Wetland ID:</b> <u>15-W-75</u>
Hydric Soil Present? Yes <u>X</u> No <u>      </u>	
Wetland Hydrology Present? Yes <u>      </u> No <u>X</u>	

Remarks:  
 Sampling point is a wetland based on vegetation and soils. Dry time of year for a seasonal wetland.

## VEGETATION— Use scientific names of plants.

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
Juncus arcticus	65	Y	FACW
Distichlis spicata	20	Y	FAC
Carex praegracilis	5	N	FACW
Festuca pratensis	5	N	FACU
	95	=Total Cover	

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 2 (A)  
 Total Number of Dominant Species Across all Strata: 2 (B)  
 Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>70</u>	x 2 = <u>140</u>
FAC species <u>20</u>	x 3 = <u>60</u>
FACU species <u>5</u>	x 4 = <u>20</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>95</u> (A)	<u>220</u> (B)

Prevalence Index = B/A = 2.32

### Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
 Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No       

% Bare Ground in Herb Stratum 0 % Cover of Biotic Crust

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation is hydrophytic.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 1	7.5YR 3.0/ 2	100					LOAM	
1 to 3	7.5YR 4.0/ 2	100					SAND	
3 to 10	10YR 4.0/ 2	85	Gley1 2.5/N	15	C	M	SILTY CLAY	
10 to 11	10YR 6.0/ 2	100					SILTY CLAY	
11 to 18	10YR 3.0/ 1	100					CLAY	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |  |
|--|--|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)                |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)            |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)        |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)        |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input checked="" type="checkbox"/> Depleted Matrix (F3) |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)         |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7)      |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)          |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)               |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |  |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- |   |
|---|
| <input type="checkbox"/> 1 cm Muck (A9) (LRR C)     |
| <input type="checkbox"/> 2 cm Muck (A10) (LRR B)    |
| <input type="checkbox"/> Reduced Vertic (F18)       |
| <input type="checkbox"/> Red Parent Material (TF2)  |
| <input type="checkbox"/> Other (Explain in Remarks) |

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes X No \_\_\_\_\_

## Remarks:

Soil meets criteria for hydric indicator F3.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- |  |
|--|
| <input type="checkbox"/> Water Marks (B1) (Riverine)             |
| <input type="checkbox"/> Sediment Deposits (B2) (Riverine)       |
| <input type="checkbox"/> Drift Deposits (B3) (Riverine)          |
| <input type="checkbox"/> Drainage Patterns (B10)                 |
| <input type="checkbox"/> Dry-Season Water Table (C2)             |
| <input type="checkbox"/> Crayfish Burrows (C8)                   |
| <input type="checkbox"/> Saturation Visible on Aerial Imag. (C9) |
| <input type="checkbox"/> Shallow Aquitard (D3)                   |
| <input checked="" type="checkbox"/> FAC-Neutral Test (D5)        |

**Field Observations:**

Surface Water Present?	Yes _____ No <u>X</u>	Depth (inches):	_____
Water Table Present?	Yes _____ No <u>X</u>	Depth (inches):	_____
Saturation Present?	Yes _____ No <u>X</u>	Depth (inches):	_____

(includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

Dry time of year if seasonal wetland, may be influenced by irrigation.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 6/7/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 7 Sampling Point: 16-N-201206070923  
 Investigators: Trent Toler Mike Perkins Section, Township, Range S 31 T 4 R 1  
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): Convex Slope(%) 2  
 Subregion (LRR): LRR D Lat: 41.0433028435 Long: -112.004413149 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Warm Springs fine sandy loam, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> Wetland ID: _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	
Remarks: Non-wetland sample point.	

## VEGETATION— Use scientific names of plants.

**Absolute % Cover** **Dominant Species** **Indicator Status**

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

Carex praegracilis	35	Y	FACW
Festuca pratensis	25	Y	FACU
Trifolium repens	5	N	FACU
Arroyo Willow	1	N	FACW
	66	=Total Cover	

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 1 (A)  
 Total Number of Dominant Species Across all Strata: 2 (B)  
 Percent of Dominant Species That are OBL, FACW, or FAC: 50.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>36</u>	x 2 = <u>72</u>
FAC species <u>0</u>	x 3 = <u>0</u>
FACU species <u>30</u>	x 4 = <u>120</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>66</u> (A)	<u>192</u> (B)
Prevalence Index = B/A= <u>2.91</u>	

### Hydrophytic Vegetation Indicators:

☐ Rapid Test for Hydrophytic Vegetation  
☐ Dominance Test > 50%  
☒ Prevalence Index ≤ 3.0  
☐ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
☐ Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No \_\_\_\_\_

% Bare Ground in Herb Stratum 5 % Cover of Biotic Crust \_\_\_\_\_

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation is hydrophytic.

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix			Redox Features				Texture	Remarks
	Color (moist)		%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 3	10YR	4.0/ 3	100					SILTY CLAY LOAM	
3 to 13	10YR	4.0/ 2	100					SANDY CLAY LOAM	
13 to 19	10YR	4.0/ 3	100					SANDY LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.      <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators:**

☐ Histosol (A1)☐ Histic Epipedon (A2)☐ Black Histic (A3)☐ Hydrogen Sulfide (A4)☐ Stratified Layers (A5) LRR C☐ 1 cm Muck (A9) LRR F D☐ Depleted Below Dark Surface (A11)☐ Thick Dark Surface (A12)☐ Sandy Mucky Mineral (S1)☐ Sandy Gleyed Matrix (S4)

☐ Sandy Redox (S5)☐ Stripped Matrix (S6)☐ Loamy Mucky Mineral (F1)☐ Loamy Gleyed Matrix (F2)☐ Depleted Matrix (F3)☐ Redox Dark Surface (F6)☐ Depleted Dark Surface (F7)☐ Redox Depressions (F8)☐ Vernal Pools (F9)

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

☐ 1 cm Muck (A9) (LRR C)☐ 2 cm Muck (A10) (LRR B)☐ Reduced Vertic (F18)☐ Red Parent Material (TF2)☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: Depth (inches):

Hydric Soil Present?

Yes  No 

X

Remarks:

Soil fails to indicate hydric conditions.

HYDROLOGY

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

☐ Surface Water (A1)☐ High Water Table (A2)☐ Saturation (A3)☐ Water Marks (B1) (Nonriverine)☐ Sediment Deposits (B2) (Nonriverine)☐ Drift Deposits (B3) (Nonriverine)☐ Surface Soil Cracks (B6)☐ Inundation Visible on Aerial Imagery (B7)☐ Water-Stained Leaves (B9)

☐ Salt Crust (B11)☐ Biotic Crust (B12)☐ Aquatic Fauna (B13)☐ Hydrogen Sulfide Odor (C1)☐ Oxidized Rhizospheres along Living Roots (C3)☐ Presence of Reduced Iron (C4)☐ Recent Iron Reduction in Tilled Soils (C6)☐ Thin Muck Surface (C7)☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

☐ Water Marks (B1) (Riverine)☐ Sediment Deposits (B2) (Riverine)☐ Drift Deposits (B3) (Riverine)☐ Drainage Patterns (B10)☐ Dry-Season Water Table (C2)☐ Crayfish Burrows (C8)☐ Saturation Visible on Aerial Imag.(C9)☐ Shallow Aquitard (D3)☐ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present? Yes  No 

X

 Depth (inches): 

--

Water Table Present? Yes  No 

X

 Depth (inches): 

--

Saturation Present? Yes  No 

X

 Depth (inches): 

--

(includes capillary fringe)

Wetland Hydrology Present?

Yes  No 

X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No hydrology indicators observed.

US Army Corps of Engineers

HDR

Arid West – Version 2.0

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 6/7/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 7 Sampling Point: 16-N-201206071040  
 Investigators: Trent Toler Mike Perkins Section, Township, Range S 31 T 4 R 1  
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): Convex Slope(%) 2  
 Subregion (LRR): LRR D Lat: 41.0429325948 Long: -112.004063093 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Warm Springs fine sandy loam, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> <b>Wetland ID:</b> _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	

Remarks:  
 Nonwetland sample point. Wetland vegetation may be driven by irrigation tail water-sheetflow likely.

## VEGETATION— Use scientific names of plants.

**Absolute % Cover** **Dominant Species** **Indicator Status**

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

Distichlis spicata	30	Y	FAC
Eleocharis palustris	20	Y	OBL
Carex nebrascensis	5	N	OBL
Carex praegracilis	5	N	FACW
Festuca pratensis	5	N	FACU
Juncus arcticus	5	N	FACW
Phalaris arundinacea	5	N	FACW
Schoenoplectus pungens	5	N	OBL
	80	=Total Cover	

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across all Strata: 2 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>30</u>	x 1 = <u>30</u>
FACW species <u>15</u>	x 2 = <u>30</u>
FAC species <u>30</u>	x 3 = <u>90</u>
FACU species <u>5</u>	x 4 = <u>20</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>80</u> (A)	<u>170</u> (B)

Prevalence Index = B/A = 2.13

### Hydrophytic Vegetation Indicators:

\_\_\_\_ Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
 \_\_\_\_\_ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 \_\_\_\_\_ Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No \_\_\_\_\_

% Bare Ground in Herb Stratum 1 % Cover of Biotic Crust

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation is hydrophytic.



**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 9	10YR	3 / 2	100				SILTY CLAY LOAM	
9 to 13	10YR	4 / 2	100				SILT LOAM	
13 to 19	10YR	3 / 2	100				LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- ☐ Histosol (A1)  
☐ Histic Epipedon (A2)  
☐ Black Histic (A3)  
☐ Hydrogen Sulfide (A4)  
☐ Stratified Layers (A5) LRR C  
☐ 1 cm Muck (A9) LRR F D  
☐ Depleted Below Dark Surface (A11)  
☐ Thick Dark Surface (A12)  
☐ Sandy Mucky Mineral (S1)  
☐ Sandy Gleyed Matrix (S4)

- ☐ Sandy Redox (S5)  
☐ Stripped Matrix (S6)  
☐ Loamy Mucky Mineral (F1)  
☐ Loamy Gleyed Matrix (F2)  
☐ Depleted Matrix (F3)  
☐ Redox Dark Surface (F6)  
☐ Depleted Dark Surface (F7)  
☐ Redox Depressions (F8)  
☐ Vernal Pools (F9)

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)  
☐ 2 cm Muck (A10) (LRR B)  
☐ Reduced Vertic (F18)  
☐ Red Parent Material (TF2)  
☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No X

## Remarks:

Soil fails to indicate hydric conditions.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)  
☐ High Water Table (A2)  
☐ Saturation (A3)  
☐ Water Marks (B1) (Nonriverine)  
☐ Sediment Deposits (B2) (Nonriverine)  
☐ Drift Deposits (B3) (Nonriverine)  
☐ Surface Soil Cracks (B6)  
☐ Inundation Visible on Aerial Imagery (B7)  
☐ Water-Stained Leaves (B9)  
☐ Salt Crust (B11)  
☐ Biotic Crust (B12)  
☐ Aquatic Fauna (B13)  
☐ Hydrogen Sulfide Odor (C1)  
☐ Oxidized Rhizospheres along Living Roots (C3)  
☐ Presence of Reduced Iron (C4)  
☐ Recent Iron Reduction in Tilled Soils (C6)  
☐ Thin Muck Surface (C7)  
☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)  
☐ Sediment Deposits (B2) (Riverine)  
☐ Drift Deposits (B3) (Riverine)  
☐ Drainage Patterns (B10)  
☐ Dry-Season Water Table (C2)  
☐ Crayfish Burrows (C8)  
☐ Saturation Visible on Aerial Imag.(C9)  
☐ Shallow Aquitard (D3)  
☒ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_  
Water Table Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_  
Saturation Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_  
(includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

No wetland hydrology.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 6/7/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 7 Sampling Point: 16-W-201206070953  
 Investigators: Trent Toler Mike Perkins Section, Township, Range S 31 T 4 R 1  
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): Concave Slope(%) 10  
 Subregion (LRR): LRR D Lat: 41.0432039687 Long: -112.004433064 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Warm Springs fine sandy loam, 0 to 1 percent slopes NWI Classification: PEMC  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No        (If No, explain in Remarks)  
 Are Vegetation       , Soil       , Hydrology       , significantly disturbed? Are "Normal Circumstances" present? Yes X No         
 Are Vegetation       , Soil       , Hydrology       , naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No <u>      </u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No <u>      </u> Wetland ID: <u>15-W-13</u>
Hydric Soil Present? Yes <u>X</u> No <u>      </u>	
Wetland Hydrology Present? Yes <u>X</u> No <u>      </u>	

Remarks:  
 Wetland "in" sample point.

## VEGETATION— Use scientific names of plants.

	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
<u>Tree Stratum</u>			
<u>Shrub Stratum</u>			
<u>Herb Stratum</u> (Plot size: <u>30 Ft</u> )			
Carex praegracilis	30	Y	FACW
Hordeum jubatum	20	Y	FAC
Juncus arcticus	20	Y	FACW
Festuca pratensis	10	N	FACU
Atriplex micrantha	2	N	UPL
	82	=Total Cover	

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 3 (A)  
 Total Number of Dominant Species Across all Strata: 3 (B)  
 Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>50</u>	x 2 = <u>100</u>
FAC species <u>20</u>	x 3 = <u>60</u>
FACU species <u>10</u>	x 4 = <u>40</u>
UPL species <u>2</u>	x 5 = <u>10</u>
Column Totals: <u>82</u> (A)	<u>210</u> (B)
Prevalence Index = B/A= <u>2.56</u>	

### Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
 Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No       

% Bare Ground in Herb Stratum 10 % Cover of Biotic Crust

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation is hydrophytic.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 3	10YR 3.0/ 3	100					SILTY CLAY LOAM	
3 to 8	10YR 3.0/ 2	80	Gley1 2.5/N	20	C	M	SILTY CLAY LOAM	
8 to 15	7.5YR 3.0/ 2	100					SANDY LOAM	
15 to 19	10YR 2.0/ 2	100					SANDY LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)                   |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)               |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)           |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)           |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input type="checkbox"/> Depleted Matrix (F3)               |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input checked="" type="checkbox"/> Redox Dark Surface (F6) |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7)         |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)             |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)                  |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |   |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)  
☐ 2 cm Muck (A10) (LRR B)  
☐ Reduced Vertic (F18)  
☐ Red Parent Material (TF2)  
☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes X No \_\_\_\_\_

## Remarks:

Soil meets criteria for hydric indicator F6.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)  
☐ Sediment Deposits (B2) (Riverine)  
☐ Drift Deposits (B3) (Riverine)  
☒ Drainage Patterns (B10)  
☐ Dry-Season Water Table (C2)  
☐ Crayfish Burrows (C8)  
☐ Saturation Visible on Aerial Imag.(C9)  
☐ Shallow Aquitard (D3)  
☒ FAC-Neutral Test (D5)

**Field Observations:**Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Water Table Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Saturation Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_

(includes capillary fringe)

**Wetland Hydrology Present?** Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

Primary source of drainage hydrology might be irrigation tail water.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 6/11/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 6 Sampling Point: 15-N-201206111445  
 Investigators: Donovan Gross Section, Township, Range S 25 T 4 R 2  
 Landform (hillslope, terrace, etc.): Basin Local Relief (concave, convex, none): None Slope(%) 2  
 Subregion (LRR): LRR D Lat: 41.0508021271 Long: -112.021315442 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Ford loam, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u>  <b>Wetland ID:</b> _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	

Remarks:  
 Upland data point, all 3 parameters failed to indicate a wetland.

## VEGETATION— Use scientific names of plants.

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
<u>Festuca pratensis</u>	<u>60</u>	<u>Y</u>	<u>FACU</u>
<u>Carex praegracilis</u>	<u>10</u>	<u>N</u>	<u>FACW</u>
<u>Juncus arcticus</u>	<u>10</u>	<u>N</u>	<u>FACW</u>
<u>Poa pratensis</u>	<u>10</u>	<u>N</u>	<u>FAC</u>
<u>Hordeum jubatum</u>	<u>5</u>	<u>N</u>	<u>FAC</u>
<u>Poa palustris</u>	<u>5</u>	<u>N</u>	<u>FAC</u>
	<u>100</u>	<u>=Total Cover</u>	

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 0 (A)  
 Total Number of Dominant Species Across all Strata: 1 (B)  
 Percent of Dominant Species That are OBL, FACW, or FAC: 0.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>20</u>	x 2 = <u>40</u>
FAC species <u>20</u>	x 3 = <u>60</u>
FACU species <u>60</u>	x 4 = <u>240</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>100</u> (A)	<u>340</u> (B)
Prevalence Index = B/A= <u>3.40</u>	

### Hydrophytic Vegetation Indicators:

☐ Rapid Test for Hydrophytic Vegetation  
☐ Dominance Test > 50%  
☐ Prevalence Index ≤ 3.0  
☐ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
☐ Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

% Bare Ground in Herb Stratum 5 % Cover of Biotic Crust \_\_\_\_\_

**Hydrophytic Vegetation Present?** Yes \_\_\_\_\_ No X

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation is not hydrophytic.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix			Redox Features				Texture	Remarks
	Color (moist)		%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 6	10YR	3.0/ 1	100		0			SILTY CLAY	
6 to 17	10YR	3.0/ 2	100		0			LOAMY SAND	
17 to 24	10YR	5.0/ 2	100		0			SANDY CLAY LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- ☐ Histosol (A1)  
☐ Histic Epipedon (A2)  
☐ Black Histic (A3)  
☐ Hydrogen Sulfide (A4)  
☐ Stratified Layers (A5) LRR C  
☐ 1 cm Muck (A9) LRR F D  
☐ Depleted Below Dark Surface (A11)  
☐ Thick Dark Surface (A12)  
☐ Sandy Mucky Mineral (S1)  
☐ Sandy Gleyed Matrix (S4)

- ☐ Sandy Redox (S5)  
☐ Stripped Matrix (S6)  
☐ Loamy Mucky Mineral (F1)  
☐ Loamy Gleyed Matrix (F2)  
☐ Depleted Matrix (F3)  
☐ Redox Dark Surface (F6)  
☐ Depleted Dark Surface (F7)  
☐ Redox Depressions (F8)  
☐ Vernal Pools (F9)

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)  
☐ 2 cm Muck (A10) (LRR B)  
☐ Reduced Vertic (F18)  
☐ Red Parent Material (TF2)  
☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_  
Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No X

Remarks:  
Soil fails to indicate hydric conditions.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)  
☐ High Water Table (A2)  
☐ Saturation (A3)  
☐ Water Marks (B1) (Nonriverine)  
☐ Sediment Deposits (B2) (Nonriverine)  
☐ Drift Deposits (B3) (Nonriverine)  
☐ Surface Soil Cracks (B6)  
☐ Inundation Visible on Aerial Imagery (B7)  
☐ Water-Stained Leaves (B9)  
☐ Salt Crust (B11)  
☐ Biotic Crust (B12)  
☐ Aquatic Fauna (B13)  
☐ Hydrogen Sulfide Odor (C1)  
☐ Oxidized Rhizospheres along Living Roots (C3)  
☐ Presence of Reduced Iron (C4)  
☐ Recent Iron Reduction in Tilled Soils (C6)  
☐ Thin Muck Surface (C7)  
☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)  
☐ Sediment Deposits (B2) (Riverine)  
☐ Drift Deposits (B3) (Riverine)  
☐ Drainage Patterns (B10)  
☐ Dry-Season Water Table (C2)  
☐ Crayfish Burrows (C8)  
☐ Saturation Visible on Aerial Imag.(C9)  
☐ Shallow Aquitard (D3)  
☐ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_  
Water Table Present? Yes X No \_\_\_\_\_ Depth (inches): 18  
Saturation Present? Yes X No \_\_\_\_\_ Depth (inches): 14  
(includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Too deep for indicators.



# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 6/11/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 6 Sampling Point: 15-N-201206111655  
 Investigators: Donovan Gross Section, Township, Range S 25 T 4 R 2  
 Landform (hillslope, terrace, etc.): Basin Local Relief (concave, convex, none): None Slope(%) 4  
 Subregion (LRR): LRR D Lat: 41.050607729 Long: -112.020398311 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Ford loam, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> <b>Wetland ID:</b> _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	

Remarks:  
 Sampling point not a wetland.

## VEGETATION— Use scientific names of plants.

**Absolute % Cover** **Dominant Species** **Indicator Status**

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

Pascopyrum smithii	70	Y	FAC
Hordeum jubatum	10	N	FAC
Puccinellia nuttalliana	5	N	FACW
	85	=Total Cover	

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across all Strata: 1 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>5</u>	x 2 = <u>10</u>
FAC species <u>80</u>	x 3 = <u>240</u>
FACU species <u>0</u>	x 4 = <u>0</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>85</u> (A)	<u>250</u> (B)

Prevalence Index = B/A = 2.94

### Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
 Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No \_\_\_\_\_

% Bare Ground in Herb Stratum 0 % Cover of Biotic Crust 0

Remarks: (Include photo numbers here or on a separate sheet.)  
 Vegetation is hydrophytic.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix			Redox Features				Texture	Remarks
	Color (moist)		%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 6	10YR	3.0/ 3	100					SILTY CLAY LOAM	
6 to 9	10YR	3.0/ 2	80	10YR 2/1	20	C	M	SILT LOAM	
9 to 12	10YR	5.0/ 2	80	10YR 4/6	10	C	M	SILT LOAM	also: 10YR 2/1 10% C M
12 to 17	10YR	3.0/ 2	100					SILTY CLAY	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |  |
|--|--|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)                |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)            |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)        |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)        |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input checked="" type="checkbox"/> Depleted Matrix (F3) |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)         |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7)      |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)          |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)               |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |  |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- |   |
|---|
| <input type="checkbox"/> 1 cm Muck (A9) (LRR C)     |
| <input type="checkbox"/> 2 cm Muck (A10) (LRR B)    |
| <input type="checkbox"/> Reduced Vertic (F18)       |
| <input type="checkbox"/> Red Parent Material (TF2)  |
| <input type="checkbox"/> Other (Explain in Remarks) |

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No X

## Remarks:

Soil fails meets criteria for hydric indicators F3 or F6, though is close. Layers either too thin or redox not distinct.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- |   |
|---|
| <input type="checkbox"/> Water Marks (B1) (Riverine)            |
| <input type="checkbox"/> Sediment Deposits (B2) (Riverine)      |
| <input type="checkbox"/> Drift Deposits (B3) (Riverine)         |
| <input type="checkbox"/> Drainage Patterns (B10)                |
| <input type="checkbox"/> Dry-Season Water Table (C2)            |
| <input type="checkbox"/> Crayfish Burrows (C8)                  |
| <input type="checkbox"/> Saturation Visible on Aerial Imag.(C9) |
| <input type="checkbox"/> Shallow Aquitard (D3)                  |
| <input type="checkbox"/> FAC-Neutral Test (D5)                  |

**Field Observations:**Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Water Table Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Saturation Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_

(includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

No wetland hydrology indicators.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 6/12/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 7 Sampling Point: 15-N-201206121320  
 Investigators: Donovan Gross Section, Township, Range S 25 T 4 R 2  
 Landform (hillslope, terrace, etc.): Basin Local Relief (concave, convex, none): None Slope(%) 20  
 Subregion (LRR): LRR D Lat: 41.0494763395 Long: -112.019120325 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Ford loam, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> <b>Wetland ID:</b> _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	

Remarks:  
 Upland data point with marginal hydrophytic vegetation.

## VEGETATION— Use scientific names of plants.

**Absolute % Cover** **Dominant Species** **Indicator Status**

Tree Stratum

Shrub Stratum

Herb Stratum (Plot size: 30 Ft )

Elymus repens

85

Y

FAC

85

=Total Cover

Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across all Strata: 1 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	<u>0</u>	x 1 =	<u>0</u>
FACW species	<u>0</u>	x 2 =	<u>0</u>
FAC species	<u>85</u>	x 3 =	<u>255</u>
FACU species	<u>0</u>	x 4 =	<u>0</u>
UPL species	<u>0</u>	x 5 =	<u>0</u>
Column Totals:	<u>85</u> (A)		<u>255</u> (B)

Prevalence Index = B/A= 3.00

### Hydrophytic Vegetation Indicators:

   Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
   Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
   Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No \_\_\_\_\_

% Bare Ground in Herb Stratum 10 % Cover of Biotic Crust 0

Remarks: (Include photo numbers here or on a separate sheet.)

Facultative-dominant vegetation qualifies as hydrophytic.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix			Redox Features				Texture	Remarks
	Color (moist)		%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 4	7.5YR	4.0 / 3	100		0			FINE SAND	
4 to 12	10YR	3.0 / 2	100		0			SILTY CLAY	
12 to 18	10YR	4.0 / 1	80	10YR 7/2	20	D	M	SILTY CLAY	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)           |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)       |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)   |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)   |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input type="checkbox"/> Depleted Matrix (F3)       |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)     |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)          |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |   |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- |   |
|---|
| <input type="checkbox"/> 1 cm Muck (A9) (LRR C)     |
| <input type="checkbox"/> 2 cm Muck (A10) (LRR B)    |
| <input type="checkbox"/> Reduced Vertic (F18)       |
| <input type="checkbox"/> Red Parent Material (TF2)  |
| <input type="checkbox"/> Other (Explain in Remarks) |

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No X

## Remarks:

Sand not dark enough for A11, depletions too deep for F3 or F7. Soils fail to meet any hydric indicators.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- |   |
|---|
| <input type="checkbox"/> Water Marks (B1) (Riverine)            |
| <input type="checkbox"/> Sediment Deposits (B2) (Riverine)      |
| <input type="checkbox"/> Drift Deposits (B3) (Riverine)         |
| <input type="checkbox"/> Drainage Patterns (B10)                |
| <input type="checkbox"/> Dry-Season Water Table (C2)            |
| <input type="checkbox"/> Crayfish Burrows (C8)                  |
| <input type="checkbox"/> Saturation Visible on Aerial Imag.(C9) |
| <input type="checkbox"/> Shallow Aquitard (D3)                  |
| <input type="checkbox"/> FAC-Neutral Test (D5)                  |

**Field Observations:**

Surface Water Present?	Yes _____ No <u>X</u>	Depth (inches):	____
Water Table Present?	Yes _____ No <u>X</u>	Depth (inches):	____
Saturation Present?	Yes _____ No <u>X</u>	Depth (inches):	____

(includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

Entire area is irrigated from field sub-drain to north; no indicators.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 4/26/2013  
 Applicant/Owner: UDOT State: UT Map/Sheet: 7 Sampling Point: 15-N-201304261153  
 Investigators: Nate Nichols Mike Perkins Section, Township, Range S 25 T 4 R 12  
 Landform (hillslope, terrace, etc.): Depression Local Relief (concave, convex, none): Concave Slope(%) 0  
 Subregion (LRR): LRR D Lat: 41.047669 Long: -112.014712 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Ford loam, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> <b>Wetland ID:</b> _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	

Remarks:  
 Sampling point has hydrophytic vegetation, but does not contain hydric soils or evidence of wetland hydrology. This point is located a bit upslope from wetland sampling point 15-W-201304261140.

## VEGETATION— Use scientific names of plants.

**Absolute % Cover** **Dominant Species** **Indicator Status**

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

Distichlis spicata	40	Y	FAC
Carex praegracilis	20	Y	FACW
Festuca pratensis	20	Y	FACU
Juncus arcticus	20	Y	FACW
	100	=Total Cover	

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across all Strata: 4 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 75.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>40</u>	x 2 = <u>80</u>
FAC species <u>40</u>	x 3 = <u>120</u>
FACU species <u>20</u>	x 4 = <u>80</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>100</u> (A)	<u>280</u> (B)

Prevalence Index = B/A = 2.80

### Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
 Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No \_\_\_\_\_

% Bare Ground in Herb Stratum \_\_\_\_\_ % Cover of Biotic Crust \_\_\_\_\_

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation qualifies as hydrophytic by the Dominance Test.



**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 2	10YR	3 / 3	100				Organic Layer	Root Mat
2 to 18	10YR	4 / 2	100				CLAY LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)           |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)       |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)   |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)   |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input type="checkbox"/> Depleted Matrix (F3)       |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)     |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)          |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |   |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)  
☐ 2 cm Muck (A10) (LRR B)  
☐ Reduced Vertic (F18)  
☐ Red Parent Material (TF2)  
☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No X

## Remarks:

Soil profile does not meet criteria for any hydric indicators.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)  
☐ Sediment Deposits (B2) (Riverine)  
☐ Drift Deposits (B3) (Riverine)  
☐ Drainage Patterns (B10)  
☐ Dry-Season Water Table (C2)  
☐ Crayfish Burrows (C8)  
☐ Saturation Visible on Aerial Imag.(C9)  
☐ Shallow Aquitard (D3)  
☒ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present?	Yes _____ No <u>X</u>	Depth (inches): _____
Water Table Present?	Yes <u>X</u> No _____	Depth (inches): 16
Saturation Present?	Yes <u>X</u> No _____	Depth (inches): 14

(includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

Sampling point does not meet criteria for wetland hydrology.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 6/11/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 6 Sampling Point: 15-W-201206111505  
 Investigators: Donovan Gross Section, Township, Range S 25 T 4 R 2  
 Landform (hillslope, terrace, etc.): Basin Local Relief (concave, convex, none): Concave Slope(%) 1  
 Subregion (LRR): LRR D Lat: 41.0507328771 Long: -112.021267688 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Ford loam, 0 to 1 percent slopes NWI Classification: PEMA

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No        (If No, explain in Remarks)  
 Are Vegetation       , Soil       , Hydrology       , significantly disturbed? Are "Normal Circumstances" present? Yes X No         
 Are Vegetation       , Soil       , Hydrology       , naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No <u>      </u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No <u>      </u> Wetland ID: <u>15-W-11</u>
Hydric Soil Present? Yes <u>X</u> No <u>      </u>	
Wetland Hydrology Present? Yes <u>X</u> No <u>      </u>	

Remarks:  
 Sampling point is a wetland.

## VEGETATION— Use scientific names of plants.

<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
<u>90</u>	<u>Y</u>	<u>OBL</u>
<u>5</u>	<u>N</u>	<u>FAC</u>
<u>95</u>	<u>=Total Cover</u>	

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

Typha latifolia  
Poa palustris

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 1 (A)  
 Total Number of Dominant Species Across all Strata: 1 (B)  
 Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>90</u>	x 1 = <u>90</u>
FACW species <u>0</u>	x 2 = <u>0</u>
FAC species <u>5</u>	x 3 = <u>15</u>
FACU species <u>0</u>	x 4 = <u>0</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>95</u> (A)	<u>105</u> (B)
Prevalence Index = B/A= <u>1.11</u>	

### Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
 Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No       

% Bare Ground in Herb Stratum 0 % Cover of Biotic Crust

Remarks: (Include photo numbers here or on a separate sheet.)  
 Emergent vegetation.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)**

Depth (inches)	Matrix			Redox Features				Texture	Remarks
	Color (moist)		%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 2	10YR	3.0/ 2	100		0			SILTY CLAY	
2 to 5	10YR	3.0/ 1	100		0			SILTY CLAY	Muck layer
5 to 8	10YR	3.0/ 2	100		0			SILTY CLAY LOAM	
8 to 10	2.5Y	5.0/ 2	100		0			SANDY CLAY	
10 to 16	10YR	4.0/ 1	100		0			LOAMY SAND	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)           |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)       |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)   |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)   |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input type="checkbox"/> Depleted Matrix (F3)       |
| <input checked="" type="checkbox"/> 1 cm Muck (A9) LRR F D | <input type="checkbox"/> Redox Dark Surface (F6)    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)     |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)          |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |   |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- |   |
|---|
| <input type="checkbox"/> 1 cm Muck (A9) (LRR C)     |
| <input type="checkbox"/> 2 cm Muck (A10) (LRR B)    |
| <input type="checkbox"/> Reduced Vertic (F18)       |
| <input type="checkbox"/> Red Parent Material (TF2)  |
| <input type="checkbox"/> Other (Explain in Remarks) |

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes X No \_\_\_\_\_

## Remarks:

2-5 inches is muck (3/1) for A9 indicator.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input checked="" type="checkbox"/> Surface Water (A1)             | <input type="checkbox"/> Salt Crust (B11)                              |
| <input checked="" type="checkbox"/> High Water Table (A2)          | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input checked="" type="checkbox"/> Saturation (A3)                | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- |  |
|--|
| <input type="checkbox"/> Water Marks (B1) (Riverine)             |
| <input type="checkbox"/> Sediment Deposits (B2) (Riverine)       |
| <input type="checkbox"/> Drift Deposits (B3) (Riverine)          |
| <input type="checkbox"/> Drainage Patterns (B10)                 |
| <input type="checkbox"/> Dry-Season Water Table (C2)             |
| <input type="checkbox"/> Crayfish Burrows (C8)                   |
| <input type="checkbox"/> Saturation Visible on Aerial Imag. (C9) |
| <input type="checkbox"/> Shallow Aquitard (D3)                   |
| <input checked="" type="checkbox"/> FAC-Neutral Test (D5)        |

**Field Observations:**

Surface Water Present?	Yes	<u>X</u>	No	_____	Depth (inches):	<u>1</u>
Water Table Present?	Yes	<u>X</u>	No	_____	Depth (inches):	<u>0</u>
Saturation Present?	Yes	<u>X</u>	No	_____	Depth (inches):	<u>0</u>

(includes capillary fringe)

**Wetland Hydrology Present?** Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

Standing water.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 6/11/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 6 Sampling Point: 15-W-201206111604  
 Investigators: Donovan Gross Section, Township, Range S 25 T 4 R 2  
 Landform (hillslope, terrace, etc.): Basin Local Relief (concave, convex, none): Concave Slope(%) 1  
 Subregion (LRR): LRR D Lat: 41.0503957943 Long: -112.020511112 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Ford loam, 0 to 1 percent slopes NWI Classification: PEMA

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No        (If No, explain in Remarks)  
 Are Vegetation       , Soil       , Hydrology       , significantly disturbed? Are "Normal Circumstances" present? Yes X No         
 Are Vegetation       , Soil       , Hydrology       , naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No <u>      </u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No <u>      </u> <b>Wetland ID:</b> <u>15-W-11</u>
Hydric Soil Present? Yes <u>X</u> No <u>      </u>	
Wetland Hydrology Present? Yes <u>X</u> No <u>      </u>	

Remarks:  
 Wetland data point.

## VEGETATION— Use scientific names of plants.

**Absolute % Cover**    **Dominant Species**    **Indicator Status**

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

Puccinellia nuttalliana	40	Y	FACW
Hordeum jubatum	20	Y	FAC
Juncus arcticus	20	Y	FACW
Schoenoplectus pungens	15	N	OBL
Chenopodium album	5	N	FACU
	100	=Total Cover	

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across all Strata: 3 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>15</u>	x 1 = <u>15</u>
FACW species <u>60</u>	x 2 = <u>120</u>
FAC species <u>20</u>	x 3 = <u>60</u>
FACU species <u>5</u>	x 4 = <u>20</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>100</u> (A)	<u>215</u> (B)

Prevalence Index = B/A = 2.15

### Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
       Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
       Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No       

% Bare Ground in Herb Stratum 1 % Cover of Biotic Crust 10

Remarks: (Include photo numbers here or on a separate sheet.)  
 Vegetation is hydrophytic.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 4	10YR	3.0/ 3		0			SILT LOAM	
4 to 10	10YR	4.0/ 1	Gley1 2.5/N	40	C	M	SILT LOAM	also: 10YR 5/2 20% D M
10 to 16	10YR	4.0/ 1		0			LOAMY SAND	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |  |
|--|--|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)                |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)            |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)        |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)        |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input checked="" type="checkbox"/> Depleted Matrix (F3) |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)         |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7)      |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)          |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)               |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |  |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)  
☐ 2 cm Muck (A10) (LRR B)  
☐ Reduced Vertic (F18)  
☐ Red Parent Material (TF2)  
☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes X No \_\_\_\_\_

## Remarks:

Soil fits hydric indicator F3.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input checked="" type="checkbox"/> Biotic Crust (B12)                 |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)  
☐ Sediment Deposits (B2) (Riverine)  
☐ Drift Deposits (B3) (Riverine)  
☐ Drainage Patterns (B10)  
☐ Dry-Season Water Table (C2)  
☐ Crayfish Burrows (C8)  
☐ Saturation Visible on Aerial Imag.(C9)  
☐ Shallow Aquitard (D3)  
☒ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present?	Yes _____ No <u>X</u>	Depth (inches): _____
Water Table Present?	Yes _____ No <u>X</u>	Depth (inches): _____
Saturation Present?	Yes _____ No <u>X</u>	Depth (inches): _____

(includes capillary fringe)

**Wetland Hydrology Present?** Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

Sampling point meets criteria for wetland hydrology.



# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 6/12/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 7 Sampling Point: 15-W-201206121227  
 Investigators: Donovan Gross Section, Township, Range S 25 T 4 R 2  
 Landform (hillslope, terrace, etc.): Basin Local Relief (concave, convex, none): None Slope(%) 1  
 Subregion (LRR): LRR D Lat: 41.0493468704 Long: -112.019070998 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Ford loam, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ <b>Wetland ID:</b> <u>15-W-11</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks:  
 Sampling point is a wetland with hydrophytic vegetation and wetland hydrology indicators, though soil was borderline hydric but close enough to be considered likely hydric.

## VEGETATION— Use scientific names of plants.

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
Pascopyrum smithii	30	Y	FAC
Juncus arcticus	25	Y	FACW
Elymus repens	20	Y	FAC
Puccinellia nuttalliana	20	Y	FACW
Schoenoplectus pungens	20	Y	OBL
Carex praegracilis	10	N	FACW
	125	=Total Cover	

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 5 (A)

Total Number of Dominant Species Across all Strata: 5 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>20</u>	x 1 = <u>20</u>
FACW species <u>55</u>	x 2 = <u>110</u>
FAC species <u>50</u>	x 3 = <u>150</u>
FACU species <u>0</u>	x 4 = <u>0</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>125</u> (A)	<u>280</u> (B)

Prevalence Index = B/A = 2.24

### Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
 Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No \_\_\_\_\_

% Bare Ground in Herb Stratum 0 % Cover of Biotic Crust 5

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation is hydrophytic.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 1	10YR 3.0/ 2	100		0			LOAM	
1 to 4	10YR 3.0/ 1	100		0			CLAY LOAM	
4 to 5	10YR 4.0/ 1	60	10YR 4/6	40	C	M	CLAY LOAM	
5 to 8	10YR 4.0/ 1	95	10YR 6/1	10	D	M	CLAY LOAM	
8 to 12	2.5Y 6.0/ 2	90	10YR 2/1	10	C	M	FINE SAND	
12 to 18	10YR 3.0/ 1	100		0			CLAY LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |   |   |
|---|---|
| <input type="checkbox"/> Histosol (A1)                                | <input type="checkbox"/> Sandy Redox (S5)           |
| <input type="checkbox"/> Histic Epipedon (A2)                         | <input type="checkbox"/> Stripped Matrix (S6)       |
| <input type="checkbox"/> Black Histic (A3)                            | <input type="checkbox"/> Loamy Mucky Mineral (F1)   |
| <input type="checkbox"/> Hydrogen Sulfide (A4)                        | <input type="checkbox"/> Loamy Gleyed Matrix (F2)   |
| <input type="checkbox"/> Stratified Layers (A5) LRR C                 | <input type="checkbox"/> Depleted Matrix (F3)       |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D                       | <input type="checkbox"/> Redox Dark Surface (F6)    |
| <input checked="" type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12)                     | <input type="checkbox"/> Redox Depressions (F8)     |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)                     | <input type="checkbox"/> Vernal Pools (F9)          |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)                     |   |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- |   |
|---|
| <input type="checkbox"/> 1 cm Muck (A9) (LRR C)     |
| <input type="checkbox"/> 2 cm Muck (A10) (LRR B)    |
| <input type="checkbox"/> Reduced Vertic (F18)       |
| <input type="checkbox"/> Red Parent Material (TF2)  |
| <input type="checkbox"/> Other (Explain in Remarks) |

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes X No \_\_\_\_\_

## Remarks:

Soil nearly meets hydric indicator A11, but is close enough to indicate a likely hydric soil.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |   |
|--|---|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)   |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                                       |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Fauna (B13)                                      |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                               |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input checked="" type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input checked="" type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)               |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                                   |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                               |

Secondary Indicators (minimum of two required)

- |   |
|---|
| <input type="checkbox"/> Water Marks (B1) (Riverine)            |
| <input type="checkbox"/> Sediment Deposits (B2) (Riverine)      |
| <input type="checkbox"/> Drift Deposits (B3) (Riverine)         |
| <input type="checkbox"/> Drainage Patterns (B10)                |
| <input type="checkbox"/> Dry-Season Water Table (C2)            |
| <input type="checkbox"/> Crayfish Burrows (C8)                  |
| <input type="checkbox"/> Saturation Visible on Aerial Imag.(C9) |
| <input type="checkbox"/> Shallow Aquitard (D3)                  |
| <input checked="" type="checkbox"/> FAC-Neutral Test (D5)       |

**Field Observations:**

Surface Water Present?	Yes _____ No <u>X</u>	Depth (inches):	_____
Water Table Present?	Yes _____ No <u>X</u>	Depth (inches):	_____
Saturation Present?	Yes _____ No <u>X</u>	Depth (inches):	_____

(includes capillary fringe)

**Wetland Hydrology Present?** Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

Area appears to show evidence for wetland hydrology based on indicators in the soil.

# WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: West Davis Corridor - 15W-201304261140 City/County: Davis County Sampling Date: 4/26/13  
 Applicant/Owner: UDOT State: Utah Sampling Point: 15W-201304261140  
 Investigator(s): Nate Nichols and Mike Perkins Section, Township, Range: S 25 T 4 R2  
 Landform (hillslope, terrace, etc.): Basin Local relief (concave, convex, none): None Slope (%): 0  
 Subregion (LRR): LRR D Lat: 41.047442 Long: -112.014724 Datum: GCS WGS84  
 Soil Map Unit Name: Ford loam, 0 to 1 percent slopes NWI classification: PEMC

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)  
 Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐  
 Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Remarks: Sampling point indicates area is a wetland.	

## VEGETATION – Use scientific names of plants.

<b>Tree Stratum</b> (Plot size: _____) 1. _____ 2. _____ 3. _____ 4. _____ _____ = Total Cover <b>Sapling/Shrub Stratum</b> (Plot size: _____) 1. _____ 2. _____ 3. _____ 4. _____ 5. _____ _____ = Total Cover <b>Herb Stratum</b> (Plot size: <u>30 ft</u> ) 1. <u>Carex praeegracilis</u> <u>50</u> <u>Y</u> <u>FACW</u> 2. <u>Juncus Arcticus</u> <u>50</u> <u>Y</u> <u>FACW</u> 3. <u>Distichlis spicata</u> <u>10</u> <u>N</u> <u>FAC</u> 4. _____ 5. _____ 6. _____ 7. _____ 8. _____ _____ = Total Cover <b>Woody Vine Stratum</b> (Plot size: _____) 1. _____ 2. _____ _____ = Total Cover % Bare Ground in Herb Stratum <u>0</u> % Cover of Biotic Crust <u>0</u>	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B) <b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species <u>0</u> x 1 = <u>0</u> FACW species <u>100</u> x 2 = <u>200</u> FAC species <u>10</u> x 3 = <u>30</u> FACU species <u>0</u> x 4 = <u>0</u> UPL species <u>0</u> x 5 = <u>0</u> Column Totals: <u>110</u> (A) <u>230</u> (B) Prevalence Index = B/A = <u>2.09</u> <b>Hydrophytic Vegetation Indicators:</b> <input checked="" type="checkbox"/> Dominance Test is >50% <input checked="" type="checkbox"/> Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. <b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Remarks: Vegetation is hydrophytic and appears quite vigorous.	

## SOIL

Sampling Point: 15W-2013

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-2	10YR 4/2	100					Org	Root Mat
2-18	10YR 4/1	97	G1 2.5/N	3	C	M	CIL	Mg masses

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

- |  |  |
|--|--|
| <input type="checkbox"/> Histosol (A1)                           | <input type="checkbox"/> Sandy Redox (S5)                |
| <input type="checkbox"/> Histic Epipedon (A2)                    | <input type="checkbox"/> Stripped Matrix (S6)            |
| <input type="checkbox"/> Black Histic (A3)                       | <input type="checkbox"/> Loamy Mucky Mineral (F1)        |
| <input type="checkbox"/> Hydrogen Sulfide (A4)                   | <input type="checkbox"/> Loamy Gleyed Matrix (F2)        |
| <input type="checkbox"/> Stratified Layers (A5) ( <b>LRR C</b> ) | <input checked="" type="checkbox"/> Depleted Matrix (F3) |
| <input type="checkbox"/> 1 cm Muck (A9) ( <b>LRR D</b> )         | <input type="checkbox"/> Redox Dark Surface (F6)         |
| <input type="checkbox"/> Depleted Below Dark Surface (A11)       | <input type="checkbox"/> Depleted Dark Surface (F7)      |
| <input type="checkbox"/> Thick Dark Surface (A12)                | <input type="checkbox"/> Redox Depressions (F8)          |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)                | <input type="checkbox"/> Vernal Pools (F9)               |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)                |  |

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- ☐ 1 cm Muck (A9) (**LRR C**)
- ☐ 2 cm Muck (A10) (**LRR B**)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes ☒ No ☐

Remarks:

Soil profile meets F3 indicator.

## HYDROLOGY

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                            | <input type="checkbox"/> Salt Crust (B11)                              |
| <input checked="" type="checkbox"/> High Water Table (A2)              | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input checked="" type="checkbox"/> Saturation (A3)                    | <input type="checkbox"/> Aquatic Invertebrates (B13)                   |
| <input type="checkbox"/> Water Marks (B1) ( <b>Nonriverine</b> )       | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) ( <b>Nonriverine</b> ) | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) ( <b>Nonriverine</b> )    | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                      | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)     | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                     | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) (**Riverine**)
- ☐ Sediment Deposits (B2) (**Riverine**)
- ☐ Drift Deposits (B3) (**Riverine**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present? Yes ☐ No ☒ Depth (inches): \_\_\_\_\_

Water Table Present? Yes ☒ No ☐ Depth (inches): 12

Saturation Present? Yes ☒ No ☐ Depth (inches): 0  
(includes capillary fringe)

**Wetland Hydrology Present?** Yes ☒ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Saturated to surface with high water table.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 6/8/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 6 Sampling Point: 14-N-201206081224  
 Investigators: Trent Toler Mike Perkins Section, Township, Range S 26 T 4 R 2  
 Landform (hillslope, terrace, etc.): Toe of Slope Local Relief (concave, convex, none): Concave Slope(%) 1  
 Subregion (LRR): LRR D Lat: 41.053711523 Long: -112.030989662 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Ford loam, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> <b>Wetland ID:</b> _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks:  
 Nonwetland in sample point in lowest area in vicinity with most promising vegetation.

## VEGETATION— Use scientific names of plants.

**Absolute % Cover** **Dominant Species** **Indicator Status**

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

Carex nebrascensis	30	Y	OBL
Eleocharis palustris	25	Y	OBL
Hordeum jubatum	20	Y	FAC
Atriplex micrantha	5	N	UPL
Juncus arcticus	5	N	FACW
Schoenoplectus pungens	5	N	OBL
	90	=Total Cover	

### Vine Stratum

## Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across all Strata: 3 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

## Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>60</u>	x 1 = <u>60</u>
FACW species <u>5</u>	x 2 = <u>10</u>
FAC species <u>20</u>	x 3 = <u>60</u>
FACU species <u>0</u>	x 4 = <u>0</u>
UPL species <u>5</u>	x 5 = <u>25</u>
Column Totals: <u>90</u> (A)	<u>155</u> (B)

Prevalence Index = B/A = 1.72

## Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
 Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No \_\_\_\_\_

% Bare Ground in Herb Stratum 0 % Cover of Biotic Crust 15

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation is hydrophytic.



Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix			Redox Features				Texture	Remarks
	Color (moist)		%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 14	10YR	3.0/ 2	100					SILTY CLAY LOAM	
14 to 18	10YR	3.0/ 2	95	10YR 6/2	5	C	M	SILTY CLAY LOAM	
18 to 20	10YR	3.0/ 2	70	10YR 7/2	30	C	M	SANDY CLAY LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) LRR C
- ☐ 1 cm Muck (A9) LRR F D
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)

☐ Sandy Redox (S5)☐ Stripped Matrix (S6)☐ Loamy Mucky Mineral (F1)☐ Loamy Gleyed Matrix (F2)☐ Depleted Matrix (F3)☐ Redox Dark Surface (F6)☐ Depleted Dark Surface (F7)☐ Redox Depressions (F8)☐ Vernal Pools (F9)

Indicators for Problematic Hydric Soils: <sup>3</sup>

- ☐ 1 cm Muck (A9) (LRR C)
- ☐ 2 cm Muck (A10) (LRR B)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ Restrictive Layer (if observed):

Type: \_\_\_\_\_  
Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes \_\_\_\_\_ No X

Remarks:  
Soils do not meet hydric criteria.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1) (Nonriverine)
- ☐ Sediment Deposits (B2) (Nonriverine)
- ☐ Drift Deposits (B3) (Nonriverine)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☒ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)
- ☒ Biotic Crust (B12)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)
- ☐ Sediment Deposits (B2) (Riverine)
- ☐ Drift Deposits (B3) (Riverine)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Shallow Aquitard (D3)
- ☒ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_  
Water Table Present? Yes X No \_\_\_\_\_ Depth (inches): 20  
Saturation Present? Yes X No \_\_\_\_\_ Depth (inches): 16  
(includes capillary fringe)

Wetland Hydrology Present? Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:  
Sampling point meets criteria for wetland hydrology.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 6/8/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 6 Sampling Point: 14-N-201206081255  
 Investigators: Donovan Gross Section, Township, Range S 26 T 4 R 2  
 Landform (hillslope, terrace, etc.): Basin Local Relief (concave, convex, none): None Slope(%) 1  
 Subregion (LRR): LRR D Lat: 41.0552321695 Long: -112.033776916 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Ford loam, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> Wetland ID: _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	
Remarks: Sampling point not a wetland.	

## VEGETATION— Use scientific names of plants.

<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
20	Y	OBL
20	Y	FACU
20	Y	FAC
10	N	FAC
5	N	OBL
75	=Total Cover	

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 2 (A)  
 Total Number of Dominant Species Across all Strata: 3 (B)  
 Percent of Dominant Species That are OBL, FACW, or FAC: 66.7% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>25</u>	x 1 = <u>25</u>
FACW species <u>0</u>	x 2 = <u>0</u>
FAC species <u>30</u>	x 3 = <u>90</u>
FACU species <u>20</u>	x 4 = <u>80</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>75</u> (A)	<u>195</u> (B)
Prevalence Index = B/A= <u>2.60</u>	

### Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
 Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No \_\_\_\_\_

% Bare Ground in Herb Stratum \_\_\_\_\_ % Cover of Biotic Crust \_\_\_\_\_

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation is hydrophytic.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 6	10YR	3 / 2	100				SILTY CLAY LOAM	
6 to 16	10YR	3 / 1	100				SILTY CLAY LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- ☐ Histosol (A1)  
☐ Histic Epipedon (A2)  
☐ Black Histic (A3)  
☐ Hydrogen Sulfide (A4)  
☐ Stratified Layers (A5) LRR C  
☐ 1 cm Muck (A9) LRR F D  
☐ Depleted Below Dark Surface (A11)  
☐ Thick Dark Surface (A12)  
☐ Sandy Mucky Mineral (S1)  
☐ Sandy Gleyed Matrix (S4)

- ☐ Sandy Redox (S5)  
☐ Stripped Matrix (S6)  
☐ Loamy Mucky Mineral (F1)  
☐ Loamy Gleyed Matrix (F2)  
☐ Depleted Matrix (F3)  
☐ Redox Dark Surface (F6)  
☐ Depleted Dark Surface (F7)  
☐ Redox Depressions (F8)  
☐ Vernal Pools (F9)

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)  
☐ 2 cm Muck (A10) (LRR B)  
☐ Reduced Vertic (F18)  
☐ Red Parent Material (TF2)  
☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No X

## Remarks:

Soil fails to indicate hydric conditions.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)  
☐ High Water Table (A2)  
☐ Saturation (A3)  
☐ Water Marks (B1) (Nonriverine)  
☐ Sediment Deposits (B2) (Nonriverine)  
☐ Drift Deposits (B3) (Nonriverine)  
☐ Surface Soil Cracks (B6)  
☐ Inundation Visible on Aerial Imagery (B7)  
☐ Water-Stained Leaves (B9)  
☐ Salt Crust (B11)  
☐ Biotic Crust (B12)  
☐ Aquatic Fauna (B13)  
☐ Hydrogen Sulfide Odor (C1)  
☐ Oxidized Rhizospheres along Living Roots (C3)  
☐ Presence of Reduced Iron (C4)  
☐ Recent Iron Reduction in Tilled Soils (C6)  
☐ Thin Muck Surface (C7)  
☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)  
☐ Sediment Deposits (B2) (Riverine)  
☐ Drift Deposits (B3) (Riverine)  
☐ Drainage Patterns (B10)  
☐ Dry-Season Water Table (C2)  
☐ Crayfish Burrows (C8)  
☐ Saturation Visible on Aerial Imag.(C9)  
☐ Shallow Aquitard (D3)  
☒ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present? Yes X No \_\_\_\_\_ Depth (inches): 2  
 Water Table Present? Yes \_\_\_\_\_ No X Depth (inches): --  
 Saturation Present? Yes \_\_\_\_\_ No X Depth (inches): --  
 (includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

Water on surface from irrigation, sub-surface soil not saturated so does not meet A1.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 6/7/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 6 Sampling Point: 15-N-201206071555  
 Investigators: Donovan Gross Section, Township, Range S 26 T 4 R 2  
 Landform (hillslope, terrace, etc.): Basin Local Relief (concave, convex, none): None Slope(%) 2  
 Subregion (LRR): LRR D Lat: 41.0530649184 Long: -112.026784336 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Ford loam, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <u>X</u> Hydric Soil Present? Yes <u>X</u> No _____ Wetland Hydrology Present? Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>X</u> Wetland ID: _____
---	--

Remarks:  
 Upland data point where soils appear to be hydric, but other 2 parameters fail.

### VEGETATION— Use scientific names of plants.

**Absolute % Cover    Dominant Species    Indicator Status**

#### Tree Stratum

#### Shrub Stratum

#### Herb Stratum (Plot size: 30 Ft )

<u>Festuca arundinacea</u>	50	Y	FACU
<u>Hordeum jubatum</u>	25	Y	FAC
<u>Puccinellia nuttalliana</u>	10	N	FACW
	85	=Total Cover	

#### Vine Stratum

#### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 1 (A)  
 Total Number of Dominant Species Across all Strata: 2 (B)  
 Percent of Dominant Species That are OBL, FACW, or FAC: 50.0% (A/B)

#### Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	10	x 2 =	20
FAC species	25	x 3 =	75
FACU species	50	x 4 =	200
UPL species	0	x 5 =	0
Column Totals:	<u>85</u> (A)		<u>295</u> (B)
<i>Prevalence Index = B/A=</i>			<u>3.47</u>

#### Hydrophytic Vegetation Indicators:

☐ Rapid Test for Hydrophytic Vegetation  
☐ Dominance Test > 50%  
☐ Prevalence Index ≤ 3.0  
☐ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
☐ Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes \_\_\_\_\_ No X

% Bare Ground in Herb Stratum 5 % Cover of Biotic Crust \_\_\_\_\_

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation is not hydrophytic.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix			Redox Features				Texture	Remarks
	Color (moist)		%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 4	10YR	3.0 / 3	100		0			SILT LOAM	
4 to 9	10YR	3.0 / 1	40	10YR 6/2	60	D	M	CLAY LOAM	
9 to 18	7.5YR	3.0 / 2	100		0			SILTY CLAY LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |  |
|--|--|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)                      |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)                  |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)              |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)              |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input checked="" type="checkbox"/> Depleted Matrix (F3)       |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)               |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input checked="" type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)                |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)                     |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |  |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- |   |
|---|
| <input type="checkbox"/> 1 cm Muck (A9) (LRR C)     |
| <input type="checkbox"/> 2 cm Muck (A10) (LRR B)    |
| <input type="checkbox"/> Reduced Vertic (F18)       |
| <input type="checkbox"/> Red Parent Material (TF2)  |
| <input type="checkbox"/> Other (Explain in Remarks) |

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?**Yes   X  No       

## Remarks:

Soil fits both hydric indicators F3 and F7.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- |   |
|---|
| <input type="checkbox"/> Water Marks (B1) (Riverine)            |
| <input type="checkbox"/> Sediment Deposits (B2) (Riverine)      |
| <input type="checkbox"/> Drift Deposits (B3) (Riverine)         |
| <input type="checkbox"/> Drainage Patterns (B10)                |
| <input type="checkbox"/> Dry-Season Water Table (C2)            |
| <input type="checkbox"/> Crayfish Burrows (C8)                  |
| <input type="checkbox"/> Saturation Visible on Aerial Imag.(C9) |
| <input type="checkbox"/> Shallow Aquitard (D3)                  |
| <input type="checkbox"/> FAC-Neutral Test (D5)                  |

**Field Observations:**

Surface Water Present?	Yes <u>      </u>	No <u>  X  </u>	Depth (inches):	<u>      --      </u>
Water Table Present?	Yes <u>      </u>	No <u>  X  </u>	Depth (inches):	<u>      --      </u>
Saturation Present?	Yes <u>      </u>	No <u>  X  </u>	Depth (inches):	<u>      --      </u>

(includes capillary fringe)

**Wetland Hydrology Present?**Yes       No   X  

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

No indicators, very dry.



# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 6/8/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 6 Sampling Point: 15-N-201206080924  
 Investigators: Donovan Gross Section, Township, Range S 26 T 4 R 2  
 Landform (hillslope, terrace, etc.): Basin Local Relief (concave, convex, none): None Slope(%) 3  
 Subregion (LRR): LRR D Lat: 41.0530696385 Long: -112.027744071 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Ford loam, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> Wetland ID: _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	

Remarks:  
 Sampling point not a wetland.

## VEGETATION— Use scientific names of plants.

**Absolute % Cover** **Dominant Species** **Indicator Status**

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

<u>Festuca arundinacea</u>	<u>30</u>	<u>Y</u>	<u>FACU</u>
<u>Carex praegracilis</u>	<u>15</u>	<u>Y</u>	<u>FACW</u>
<u>Carex nebrascensis</u>	<u>10</u>	<u>N</u>	<u>OBL</u>
<u>Hordeum jubatum</u>	<u>10</u>	<u>N</u>	<u>FAC</u>
<u>Puccinellia nuttalliana</u>	<u>10</u>	<u>N</u>	<u>FACW</u>
	<u>75</u>	=Total Cover	

### Vine Stratum

## Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across all Strata: 2 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 50.0% (A/B)

## Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>10</u>	x 1 = <u>10</u>
FACW species <u>25</u>	x 2 = <u>50</u>
FAC species <u>10</u>	x 3 = <u>30</u>
FACU species <u>30</u>	x 4 = <u>120</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>75</u> (A)	<u>210</u> (B)

Prevalence Index = B/A = 2.80

## Hydrophytic Vegetation Indicators:

\_\_\_\_ Rapid Test for Hydrophytic Vegetation  
 \_\_\_\_ Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
 \_\_\_\_ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 \_\_\_\_ Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No \_\_\_\_\_

% Bare Ground in Herb Stratum 10 % Cover of Biotic Crust \_\_\_\_\_

Remarks: (Include photo numbers here or on a separate sheet.)  
 Fescue dominant, but qualifies as hydrophytic by the Prevalence Index.

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix			Redox Features				Texture	Remarks
	Color (moist)		%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 4	10YR	4.0/ 3	100		0			SILTY CLAY LOAM	
4 to 16	10YR	3.0/ 1	80	10YR 2/1	20	C	M	CLAY LOAM	10YR 5/2 1%

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators:**

☐ Histosol (A1)☐ Histic Epipedon (A2)☐ Black Histic (A3)☐ Hydrogen Sulfide (A4)☐ Stratified Layers (A5) LRR C☐ 1 cm Muck (A9) LRR F D☐ Depleted Below Dark Surface (A11)☐ Thick Dark Surface (A12)☐ Sandy Mucky Mineral (S1)☐ Sandy Gleyed Matrix (S4)☐ Sandy Redox (S5)☐ Stripped Matrix (S6)☐ Loamy Mucky Mineral (F1)☐ Loamy Gleyed Matrix (F2)☐ Depleted Matrix (F3)☐ Redox Dark Surface (F6)☐ Depleted Dark Surface (F7)☐ Redox Depressions (F8)☐ Vernal Pools (F9)

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

☐ 1 cm Muck (A9) (LRR C)☐ 2 cm Muck (A10) (LRR B)☐ Reduced Vertic (F18)☐ Red Parent Material (TF2)☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☒ **Restrictive Layer (if observed):**

Type: mineral clay  
Depth (inches): 16

**Hydric Soil Present?** Yes ☐ No ☒

Remarks:  
Soil fails to indicate hydric conditions.

HYDROLOGY

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

☐ Surface Water (A1)☐ High Water Table (A2)☐ Saturation (A3)☐ Water Marks (B1) (Nonriverine)☐ Sediment Deposits (B2) (Nonriverine)☐ Drift Deposits (B3) (Nonriverine)☐ Surface Soil Cracks (B6)☐ Inundation Visible on Aerial Imagery (B7)☐ Water-Stained Leaves (B9)☐ Salt Crust (B11)☐ Biotic Crust (B12)☐ Aquatic Fauna (B13)☐ Hydrogen Sulfide Odor (C1)☐ Oxidized Rhizospheres along Living Roots (C3)☐ Presence of Reduced Iron (C4)☐ Recent Iron Reduction in Tilled Soils (C6)☐ Thin Muck Surface (C7)☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

☐ Water Marks (B1) (Riverine)☐ Sediment Deposits (B2) (Riverine)☐ Drift Deposits (B3) (Riverine)☐ Drainage Patterns (B10)☐ Dry-Season Water Table (C2)☐ Crayfish Burrows (C8)☐ Saturation Visible on Aerial Imag.(C9)☐ Shallow Aquitard (D3)☒ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present? Yes ☐ No ☒ Depth (inches): --

Water Table Present? Yes ☐ No ☒ Depth (inches): --

Saturation Present? Yes ☐ No ☒ Depth (inches): --

(includes capillary fringe)

**Wetland Hydrology Present?** Yes ☐ No ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:  
No primary indicators, speculate irrigation management has changed.

US Army Corps of Engineers

HDR

Arid West – Version 2.0

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 6/8/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 6 Sampling Point: 15-N-201206081048  
 Investigators: Donovan Gross Section, Township, Range S 26 T 4 R 2  
 Landform (hillslope, terrace, etc.): Basin Local Relief (concave, convex, none): None Slope(%) 3  
 Subregion (LRR): LRR D Lat: 41.0530299175 Long: -112.027765984 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Ford loam, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> <b>Wetland ID:</b> _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	

Remarks:  
 Sampling point not a wetland.

## VEGETATION— Use scientific names of plants.

**Absolute % Cover** **Dominant Species** **Indicator Status**

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

Hordeum jubatum	30	Y	FAC
Festuca pratensis	15	Y	FACU
Carex nebrascensis	10	N	OBL
Eleocharis palustris	5	N	OBL
	60	=Total Cover	

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across all Strata: 2 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 50.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>15</u>	x 1 = <u>15</u>
FACW species <u>0</u>	x 2 = <u>0</u>
FAC species <u>30</u>	x 3 = <u>90</u>
FACU species <u>15</u>	x 4 = <u>60</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>60</u> (A)	<u>165</u> (B)

Prevalence Index = B/A = 2.75

### Hydrophytic Vegetation Indicators:

☐ Rapid Test for Hydrophytic Vegetation  
☐ Dominance Test > 50%  
☒ Prevalence Index ≤ 3.0  
☐ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
☐ Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No \_\_\_\_\_

% Bare Ground in Herb Stratum 10 % Cover of Biotic Crust \_\_\_\_\_

Remarks: (Include photo numbers here or on a separate sheet.)  
 Vegetation qualifies as hydrophytic by the Prevalence Index.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 5	10YR	3.0 / 2		0			SILTY CLAY	
5 to 8	10YR	2.0 / 1		0			SILTY CLAY	
8 to 18	7.5YR	3.0 / 2		0			SILTY CLAY LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)           |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)       |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)   |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)   |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input type="checkbox"/> Depleted Matrix (F3)       |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)     |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)          |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |   |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- |   |
|---|
| <input type="checkbox"/> 1 cm Muck (A9) (LRR C)     |
| <input type="checkbox"/> 2 cm Muck (A10) (LRR B)    |
| <input type="checkbox"/> Reduced Vertic (F18)       |
| <input type="checkbox"/> Red Parent Material (TF2)  |
| <input type="checkbox"/> Other (Explain in Remarks) |

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No X

## Remarks:

Soil fails to indicate hydric conditions.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- |   |
|---|
| <input type="checkbox"/> Water Marks (B1) (Riverine)            |
| <input type="checkbox"/> Sediment Deposits (B2) (Riverine)      |
| <input type="checkbox"/> Drift Deposits (B3) (Riverine)         |
| <input type="checkbox"/> Drainage Patterns (B10)                |
| <input type="checkbox"/> Dry-Season Water Table (C2)            |
| <input type="checkbox"/> Crayfish Burrows (C8)                  |
| <input type="checkbox"/> Saturation Visible on Aerial Imag.(C9) |
| <input type="checkbox"/> Shallow Aquitard (D3)                  |
| <input type="checkbox"/> FAC-Neutral Test (D5)                  |

**Field Observations:**

Surface Water Present?	Yes _____ No <u>X</u>	Depth (inches): _____
Water Table Present?	Yes _____ No <u>X</u>	Depth (inches): _____
Saturation Present?	Yes _____ No <u>X</u>	Depth (inches): _____

(includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

No indicators.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 6/11/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 6 Sampling Point: 15-N-201206111315  
 Investigators: Donovan Gross Section, Township, Range S 25 T 4 R 2  
 Landform (hillslope, terrace, etc.): Basin Local Relief (concave, convex, none): None Slope(%) 2  
 Subregion (LRR): LRR D Lat: 41.0521518082 Long: -112.024348808 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Ford loam, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil X, Hydrology \_\_\_\_\_, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> <b>Wetland ID:</b> _____
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes _____ No <u>X</u>	

Remarks:  
 Upland data point because vegetation and hydrology fail to indicate a wetland.

## VEGETATION— Use scientific names of plants.

Tree Stratum

Shrub Stratum

Herb Stratum (Plot size: 30 Ft )

	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
Hordeum jubatum	25	Y	FAC
Melilotus officinalis	15	Y	FACU
Bromus tectorum	10	N	UPL
Puccinellia nuttalliana	10	N	FACW
Hordeum brachyantherum	5	N	FACW
Medicago sativa	5	N	UPL
	70	=Total Cover	

Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 1 (A)  
 Total Number of Dominant Species Across all Strata: 2 (B)  
 Percent of Dominant Species That are OBL, FACW, or FAC: 50.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>15</u>	x 2 = <u>30</u>
FAC species <u>25</u>	x 3 = <u>75</u>
FACU species <u>15</u>	x 4 = <u>60</u>
UPL species <u>15</u>	x 5 = <u>75</u>
Column Totals: <u>70</u> (A)	<u>240</u> (B)
Prevalence Index = B/A= <u>3.43</u>	

### Hydrophytic Vegetation Indicators:

☐ Rapid Test for Hydrophytic Vegetation  
☐ Dominance Test > 50%  
☐ Prevalence Index ≤ 3.0  
☐ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
☐ Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes \_\_\_\_\_ No X

% Bare Ground in Herb Stratum 10 % Cover of Biotic Crust \_\_\_\_\_

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation is not hydrophytic.



**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 2	10YR	4.0 / 3		0			SANDY LOAM	
2 to 7	10YR	7.0 / 1		0			SANDY LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |  |
|--|--|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)                |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)            |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)        |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)        |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input checked="" type="checkbox"/> Depleted Matrix (F3) |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)         |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7)      |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)          |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)               |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |  |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)
- ☐ 2 cm Muck (A10) (LRR B)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☒ **Restrictive Layer (if observed):**Type: calicicDepth (inches): 5**Hydric Soil Present?** Yes X No     

## Remarks:

Restrictive layer is calcic caliche type. Soil meets criteria for hydric indicator F3.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)
- ☐ Sediment Deposits (B2) (Riverine)
- ☐ Drift Deposits (B3) (Riverine)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☒ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present?	Yes <u>    </u>	No <u>X</u>	Depth (inches):	<u>    --    </u>
Water Table Present?	Yes <u>    </u>	No <u>X</u>	Depth (inches):	<u>    --    </u>
Saturation Present?	Yes <u>    </u>	No <u>X</u>	Depth (inches):	<u>    --    </u>

(includes capillary fringe)

**Wetland Hydrology Present?** Yes      No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

Dry area lacks sufficient evidence for wetland hydrology.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 6/7/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 6 Sampling Point: 15-W-201206071630  
 Investigators: Donovan Gross Section, Township, Range S 26 T 4 R 2  
 Landform (hillslope, terrace, etc.): Basin Local Relief (concave, convex, none): Concave Slope(%) 1  
 Subregion (LRR): LRR D Lat: 41.0530758754 Long: -112.027117869 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Ford loam, 0 to 1 percent slopes NWI Classification: PEMA

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No        (If No, explain in Remarks)  
 Are Vegetation       , Soil       , Hydrology       , significantly disturbed? Are "Normal Circumstances" present? Yes X No         
 Are Vegetation       , Soil       , Hydrology       , naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No <u>      </u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No <u>      </u> Wetland ID: <u>15-W-97</u>
Hydric Soil Present? Yes <u>X</u> No <u>      </u>	
Wetland Hydrology Present? Yes <u>X</u> No <u>      </u>	

Remarks:  
 Sampling point is a wetland.

## VEGETATION— Use scientific names of plants.

**Absolute % Cover**    **Dominant Species**    **Indicator Status**

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

<u>Festuca arundinacea</u>	<u>50</u>	<u>Y</u>	<u>FACU</u>
<u>Carex nebrascensis</u>	<u>25</u>	<u>Y</u>	<u>OBL</u>
<u>Distichlis spicata</u>	<u>20</u>	<u>Y</u>	<u>FAC</u>
	<u>95</u>	<u>=Total Cover</u>	

### Vine Stratum

## Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across all Strata: 3 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 66.7% (A/B)

## Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>25</u>	x 1 = <u>25</u>
FACW species <u>0</u>	x 2 = <u>0</u>
FAC species <u>20</u>	x 3 = <u>60</u>
FACU species <u>50</u>	x 4 = <u>200</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>95</u> (A)	<u>285</u> (B)

Prevalence Index = B/A = 3.00

## Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
 Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No       

% Bare Ground in Herb Stratum 5 % Cover of Biotic Crust

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation is hydrophytic.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix			Redox Features				Texture	Remarks
	Color (moist)		%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 2	7.5YR	4.0 / 3	100		0			SILT LOAM	
2 to 8	7.5YR	3.0 / 1	85	Gley1 2.5/N	15	C	M	SANDY CLAY LOAM	
8 to 11	7.5YR	3.0 / 1	100		0			SANDY CLAY LOAM	
11 to 18	7.5YR	3.0 / 1	40	2.5Y 6/1	60	D	M	SANDY CLAY LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)                   |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)               |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)           |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)           |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input type="checkbox"/> Depleted Matrix (F3)               |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input checked="" type="checkbox"/> Redox Dark Surface (F6) |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7)         |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)             |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)                  |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |   |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)  
☐ 2 cm Muck (A10) (LRR B)  
☐ Reduced Vertic (F18)  
☐ Red Parent Material (TF2)  
☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes X No \_\_\_\_\_**Remarks:**

Heavy manganese masses in 2-8 in layer, soil meets criteria for hydric indicator F6.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |   |
|--|---|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)   |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                                       |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Fauna (B13)                                      |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                               |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input checked="" type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                            |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)               |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                                   |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                               |

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)  
☐ Sediment Deposits (B2) (Riverine)  
☐ Drift Deposits (B3) (Riverine)  
☐ Drainage Patterns (B10)  
☐ Dry-Season Water Table (C2)  
☐ Crayfish Burrows (C8)  
☐ Saturation Visible on Aerial Imag.(C9)  
☐ Shallow Aquitard (D3)  
☐ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present?	Yes _____ No <u>X</u>	Depth (inches):	____
Water Table Present?	Yes _____ No <u>X</u>	Depth (inches):	____
Saturation Present?	Yes _____ No <u>X</u>	Depth (inches):	____

(includes capillary fringe)

**Wetland Hydrology Present?** Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

**Remarks:**

Oxidized channels on live roots.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 6/11/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 6 Sampling Point: 15-W-201206111217  
 Investigators: Donovan Gross Section, Township, Range S 25 T 4 R 2  
 Landform (hillslope, terrace, etc.): Basin Local Relief (concave, convex, none): Concave Slope(%) 1  
 Subregion (LRR): LRR D Lat: 41.0524839911 Long: -112.025510516 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Ford loam, 0 to 1 percent slopes NWI Classification: PEMA

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No        (If No, explain in Remarks)  
 Are Vegetation       , Soil       , Hydrology       , significantly disturbed? Are "Normal Circumstances" present? Yes        No X  
 Are Vegetation       , Soil X, Hydrology       , naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No <u>      </u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No <u>      </u> Wetland ID: <u>15-CW-10</u>
Hydric Soil Present? Yes <u>X</u> No <u>      </u>	
Wetland Hydrology Present? Yes <u>X</u> No <u>      </u>	

Remarks:  
 Wetland point with saline/alkaline soils.

## VEGETATION— Use scientific names of plants.

	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
<u>Tree Stratum</u>			
<u>Shrub Stratum</u>			
<u>Herb Stratum</u> (Plot size: <u>30 Ft</u> )			
Juncus arcticus	20	Y	FACW
Puccinellia nuttalliana	20	Y	FACW
Schoenoplectus pungens	20	Y	OBL
Hordeum jubatum	15	N	FAC
Phragmites australis	5	N	FACW
Tamarix ramosissima	1	N	FACW
	81	=Total Cover	

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 3 (A)  
 Total Number of Dominant Species Across all Strata: 3 (B)  
 Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>20</u>	x 1 = <u>20</u>
FACW species <u>46</u>	x 2 = <u>92</u>
FAC species <u>15</u>	x 3 = <u>45</u>
FACU species <u>0</u>	x 4 = <u>0</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>81</u> (A)	<u>157</u> (B)
Prevalence Index = B/A= <u>1.94</u>	

### Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
 Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No       

% Bare Ground in Herb Stratum 5 % Cover of Biotic Crust 20

Remarks: (Include photo numbers here or on a separate sheet.)  
 Vegetation is hydrophytic.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)**

Depth (inches)	Matrix		%	Redox Features				Texture	Remarks
	Color (moist)			Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 4	7.5YR	5.0 / 2	95	7.5YR 3/1	2	C	M	SANDY CLAY LOAM	
4 to 10	7.5YR	6.0 / 1	40	7.5YR 5/6	60	C	M	SANDY CLAY LOAM	
10 to 18	7.5YR	7.0 / 3	40	7.5YR 5/8	50	C	M	SANDY CLAY LOAM	also: 10YR 6/1 10% D

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |  |
|--|--|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)                |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)            |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)        |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)        |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input checked="" type="checkbox"/> Depleted Matrix (F3) |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)         |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7)      |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)          |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)               |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |  |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- |   |
|---|
| <input type="checkbox"/> 1 cm Muck (A9) (LRR C)     |
| <input type="checkbox"/> 2 cm Muck (A10) (LRR B)    |
| <input type="checkbox"/> Reduced Vertic (F18)       |
| <input type="checkbox"/> Red Parent Material (TF2)  |
| <input type="checkbox"/> Other (Explain in Remarks) |

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes   X   No       

## Remarks:

High alkaline/saline soil with sandy texture. Appears to fit hydric soil indicator F3.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input checked="" type="checkbox"/> Biotic Crust (B12)                 |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- |   |
|---|
| <input type="checkbox"/> Water Marks (B1) (Riverine)            |
| <input type="checkbox"/> Sediment Deposits (B2) (Riverine)      |
| <input type="checkbox"/> Drift Deposits (B3) (Riverine)         |
| <input type="checkbox"/> Drainage Patterns (B10)                |
| <input type="checkbox"/> Dry-Season Water Table (C2)            |
| <input type="checkbox"/> Crayfish Burrows (C8)                  |
| <input type="checkbox"/> Saturation Visible on Aerial Imag.(C9) |
| <input type="checkbox"/> Shallow Aquitard (D3)                  |
| <input checked="" type="checkbox"/> FAC-Neutral Test (D5)       |

**Field Observations:**

Surface Water Present?	Yes <u>      </u>	No <u>  X  </u>	Depth (inches):	<u>      </u> --
Water Table Present?	Yes <u>      </u>	No <u>  X  </u>	Depth (inches):	<u>      </u> --
Saturation Present?	Yes <u>      </u>	No <u>  X  </u>	Depth (inches):	<u>      </u> --

(includes capillary fringe)

**Wetland Hydrology Present?** Yes   X   No       

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

Prominent biotic crust.



# WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: WDC AC-09202016-1-IN City/County: Davis County Sampling Date: 9/20/2016  
 Applicant/Owner: UDOT State: Utah Sampling Point: AC-09202016-1  
 Investigator(s): AC Section, Township, Range: 26 4N 2W  
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): concave Slope (%): 0%  
 Subregion (LRR): D Lat: 41.051525557 Long: -112.026839554999 Datum: D WGS 1983  
 Soil Map Unit Name: Ford loam, 0 to 1 percent slopes NWI classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology ☒ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____	
Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	
Remarks: Problematic hydrology. Dry time of year. Salt grass meadow connected to area with Juncus arcticus and Eleocharis palustris.	

## VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)  Total Number of Dominant Species Across All Strata: <u>1</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
_____ = Total Cover				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B)  Prevalence Index = B/A = _____
<u>Sapling/Shrub Stratum</u> (Plot size: _____)	_____	_____	_____	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
_____ = Total Cover				<b>Hydrophytic Vegetation Indicators:</b> <input checked="" type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.  <b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No _____
<u>Herb Stratum</u> (Plot size: <u>5 ft. radius</u> )	_____	_____	_____	
1. <u>Distichlis spicata</u>	<u>150%</u>	<u>Yes</u>	<u>FAC</u>	
2. <u>Hordeum jubatum</u>	<u>5%</u>	_____	<u>FAC</u>	
3. <u>Puccinellia nuttalliana</u>	<u>5%</u>	_____	<u>FACW</u>	
4. <u>Suaeda occidentalis</u>	<u>5%</u>	_____	<u>FACW</u>	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
_____ = Total Cover				
<u>Woody Vine Stratum</u> (Plot size: _____)	_____	_____	_____	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
_____ = Total Cover				
% Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____				
Remarks: Vegetation passes dominance test.				

## SOIL

Sampling Point: AC-09202

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-2	10YR 2/2	100%					organic	
2-6	10YR 4/2	78%	10YR 3/1	20%	C	M	ClLoam	3/1 mottling
			10YR 6/2	2%				
6-12	10YR 4/2	55%	10YR 6/2	5%	D	M	ClLoam	
	10YR 3/2	40%						
12-13	10YR 4/2	79%	10YR 3/2	20%			SiLoam	
			10YR 4/6	1%	C	M		

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

☐ Histosol (A1)  
☐ Histic Epipedon (A2)  
☐ Black Histic (A3)  
☐ Hydrogen Sulfide (A4)  
☐ Stratified Layers (A5) (**LRR C**)  
☐ 1 cm Muck (A9) (**LRR D**)  
☐ Depleted Below Dark Surface (A11)  
☐ Thick Dark Surface (A12)  
☐ Sandy Mucky Mineral (S1)  
☐ Sandy Gleyed Matrix (S4)

☐ Sandy Redox (S5)  
☐ Stripped Matrix (S6)  
☐ Loamy Mucky Mineral (F1)  
☐ Loamy Gleyed Matrix (F2)  
☒ Depleted Matrix (F3)  
☐ Redox Dark Surface (F6)  
☐ Depleted Dark Surface (F7)  
☐ Redox Depressions (F8)  
☐ Vernal Pools (F9)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

☐ 1 cm Muck (A9) (**LRR C**)  
☐ 2 cm Muck (A10) (**LRR B**)  
☐ Reduced Vertic (F18)  
☐ Red Parent Material (TF2)  
☐ Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes ☒ No ☐

Remarks:

Soil profile fits Depleted Matrix (F3) indicator.

## HYDROLOGY

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one required; check all that apply)

☐ Surface Water (A1)  
☐ High Water Table (A2)  
☐ Saturation (A3)  
☐ Water Marks (B1) (**Nonriverine**)  
☐ Sediment Deposits (B2) (**Nonriverine**)  
☐ Drift Deposits (B3) (**Nonriverine**)  
☐ Surface Soil Cracks (B6)  
☐ Inundation Visible on Aerial Imagery (B7)  
☐ Water-Stained Leaves (B9)

☐ Salt Crust (B11)  
☐ Biotic Crust (B12)  
☐ Aquatic Invertebrates (B13)  
☐ Hydrogen Sulfide Odor (C1)  
☐ Oxidized Rhizospheres along Living Roots (C3)  
☐ Presence of Reduced Iron (C4)  
☐ Recent Iron Reduction in Tilled Soils (C6)  
☐ Thin Muck Surface (C7)  
☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

☐ Water Marks (B1) (**Riverine**)  
☐ Sediment Deposits (B2) (**Riverine**)  
☐ Drift Deposits (B3) (**Riverine**)  
☐ Drainage Patterns (B10)  
☐ Dry-Season Water Table (C2)  
☐ Crayfish Burrows (C8)  
☐ Saturation Visible on Aerial Imagery (C9)  
☐ Shallow Aquitard (D3)  
☒ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present? Yes ☐ No ☒ Depth (inches): \_\_\_\_\_

Water Table Present? Yes ☐ No ☒ Depth (inches): \_\_\_\_\_

Saturation Present? (includes capillary fringe) Yes ☐ No ☒ Depth (inches): \_\_\_\_\_

**Wetland Hydrology Present?** Yes ☐ No ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Dry. Wetland hydrology not indicated but observed during dry time of year for seasonal hydrology.

# WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: WDC AC-09202016-1-OUT City/County: Davis Sampling Date: 9/20/2016  
 Applicant/Owner: UDOT State: Utah Sampling Point: AC-09202016-1  
 Investigator(s): AC Section, Township, Range: 26 4N 2W  
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): convex Slope (%): 1%  
 Subregion (LRR): D Lat: 41.05174026 Long: -112.026932677999 Datum: GCS WGS84  
 Soil Map Unit Name: Ford loam, 0 to 1 percent slopes NWI classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology ☒ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Hydric Soil Present? Yes _____ No _____	
Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	
Remarks:  Upland. Didn't sample soils.	

## VEGETATION – Use scientific names of plants.

<b>Tree Stratum</b> (Plot size: _____) 1. _____ 2. _____ 3. _____ 4. _____ _____ = Total Cover <b>Sapling/Shrub Stratum</b> (Plot size: _____) 1. _____ 2. _____ 3. _____ 4. _____ 5. _____ _____ = Total Cover <b>Herb Stratum</b> (Plot size: <u>5 ft. radius</u> ) 1. <u>Thinopyrum intermedium</u> <u>100%</u> Yes <u>NL</u> 2. <u>Distichlis spicata</u> <u>20%</u> _____ <u>FAC</u> 3. <u>Lactuca serriola</u> <u>1%</u> _____ <u>FACU</u> 4. <u>Lepidium latifolium</u> <u>1%</u> _____ <u>FAC</u> 5. <u>Suaeda occidentalis</u> <u>1%</u> _____ <u>FACW</u> 6. _____ 7. _____ 8. _____ _____ = Total Cover <b>Woody Vine Stratum</b> (Plot size: _____) 1. _____ 2. _____ _____ = Total Cover % Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B) <b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species <u>1</u> x 2 = <u>2</u> FAC species <u>21</u> x 3 = <u>63</u> FACU species <u>1</u> x 4 = <u>4</u> UPL species <u>100</u> x 5 = <u>500</u> Column Totals: <u>123</u> (A) <u>569</u> (B) Prevalence Index = B/A = <u>4.6</u> <b>Hydrophytic Vegetation Indicators:</b> ___ Dominance Test is >50% ___ Prevalence Index is ≤3.0 <sup>1</sup> ___ Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. <b>Hydrophytic Vegetation Present?</b> Yes _____ No <input checked="" type="checkbox"/>
Remarks:  Vegetation is not hydrophytic.	

## SOIL

Sampling Point: AC-09202 

[illegible]

## HYDROLOGY

Wetland Hydrology Indicators:		
Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (2 or more required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) ( <b>Riverine</b> )
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) ( <b>Riverine</b> )
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) ( <b>Riverine</b> )
<input type="checkbox"/> Water Marks (B1) ( <b>Nonriverine</b> )	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) ( <b>Nonriverine</b> )	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3) ( <b>Nonriverine</b> )	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:  Dry. No indicators observed.		

# WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: WDC DGAC-09152016-1-OUT-2 City/County: Davis County Sampling Date: 9/15/2016  
 Applicant/Owner: UDOT State: Utah Sampling Point: DGAC-09152016-1-OUT-2  
 Investigator(s): DG/AC Section, Township, Range: 26 4N 2W  
 Landform (hillslope, terrace, etc.): terrace/depression Local relief (concave, convex, none): concave Slope (%): 1%  
 Subregion (LRR): D Lat: 41.05286381 Long: -112.0315986 Datum: D WGS 1983  
 Soil Map Unit Name: Ford loam, 0 to 1 percent slopes NWI classification: PEM1C

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)  
 Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐  
 Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Remarks: No paired in-point (second out-point confirms outside of wetland).	

## VEGETATION – Use scientific names of plants.

<b>Tree Stratum</b> (Plot size: _____) 1. _____ 2. _____ 3. _____ 4. _____ _____ = Total Cover <b>Sapling/Shrub Stratum</b> (Plot size: _____) 1. _____ 2. _____ 3. _____ 4. _____ 5. _____ _____ = Total Cover <b>Herb Stratum</b> (Plot size: <u>5 ft. radius</u> ) 1. <u>Hordeum jubatum</u> 80% Yes FAC 2. <u>Distichlis spicata</u> 120% Yes FAC 3. <u>Ambrosia artemisiifolia</u> 5% FACU 4. <u>Juncus arcticus</u> 5% FACW 5. <u>Chenopodium album</u> 3% FACU 6. <u>Polypogon monspeliensis</u> 3% FACW 7. <u>Thinopyrum intermedium</u> 1% NL 8. _____ 217% = Total Cover <b>Woody Vine Stratum</b> (Plot size: _____) 1. _____ 2. _____ _____ = Total Cover % Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B) <b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____ <b>Hydrophytic Vegetation Indicators:</b> <input checked="" type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. <b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Remarks: FAC grassees with annual weeds in small depressions.	



## SOIL

Sampling Point: DGAC-0914

### Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-2	10YR 3/2	100%						Many roots
2-6	10YR 4/2	60%					SiLoam	
	10YR 3/1	40%						
6-10	10YR 4/2	60%					ClLoam	
	10YR 3/1	40%						
10-12	10YR 4/3	80%					ClLoam	
	10YR 3/1	20%						

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

### Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) (**LRR C**)
- ☐ 1 cm Muck (A9) (**LRR D**)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)

- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

### Indicators for Problematic Hydric Soils<sup>3</sup>:

- ☐ 1 cm Muck (A9) (**LRR C**)
- ☐ 2 cm Muck (A10) (**LRR B**)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

### Restrictive Layer (if present):

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes \_\_\_\_\_ No ☒

Remarks:

No hydric indicators observed in soil profile.

## HYDROLOGY

### Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1) (**Nonriverine**)
- ☐ Sediment Deposits (B2) (**Nonriverine**)
- ☐ Drift Deposits (B3) (**Nonriverine**)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☒ Water-Stained Leaves (B9)

- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) (**Riverine**)
- ☐ Sediment Deposits (B2) (**Riverine**)
- ☐ Drift Deposits (B3) (**Riverine**)
- ☒ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

### Field Observations:

Surface Water Present? Yes \_\_\_\_\_ No \_\_\_\_\_ Depth (inches): \_\_\_\_\_

Water Table Present? Yes \_\_\_\_\_ No \_\_\_\_\_ Depth (inches): \_\_\_\_\_

Saturation Present? Yes \_\_\_\_\_ No \_\_\_\_\_ Depth (inches): \_\_\_\_\_  
(includes capillary fringe)

Wetland Hydrology Present? Yes ☒ No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Hydrology indicator (B9) observed.

# WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: WDC DGAC-09152016-1-OUT City/County: Davis County Sampling Date: 9/15/2016  
 Applicant/Owner: UDOT State: Utah Sampling Point: DGAC-09152016-1-OUT  
 Investigator(s): DG/AC Section, Township, Range: 26 4N 2W  
 Landform (hillslope, terrace, etc.): terrace/depression Local relief (concave, convex, none): concave Slope (%): 1%  
 Subregion (LRR): D Lat: 41.05290509 Long: -112.0316676 Datum: D WGS 1983  
 Soil Map Unit Name: Ford loam, 0 to 1 percent slopes NWI classification: PEM1C

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)  
 Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐  
 Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Remarks:  Not a wetland.	

## VEGETATION – Use scientific names of plants.

<b>Tree Stratum</b> (Plot size: _____) 1. _____ 2. _____ 3. _____ 4. _____ _____ = Total Cover <b>Sapling/Shrub Stratum</b> (Plot size: _____) 1. _____ 2. _____ 3. _____ 4. _____ 5. _____ _____ = Total Cover <b>Herb Stratum</b> (Plot size: <u>5 ft. radius</u> ) 1. <u>Distichlis spicata</u> <u>60%</u> <u>Yes</u> <u>FAC</u> 2. <u>Juncus arcticus</u> <u>20%</u> <u></u> <u>FACW</u> 3. <u>Ambrosia artemisiifolia</u> <u>20%</u> <u></u> <u>FACU</u> 4. <u>Hordeum jubatum</u> <u>15%</u> <u></u> <u>FAC</u> 5. _____ 6. _____ 7. _____ 8. _____ _____ = Total Cover <b>Woody Vine Stratum</b> (Plot size: _____) 1. _____ 2. _____ _____ = Total Cover % Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B) <b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____ <b>Hydrophytic Vegetation Indicators:</b> <input checked="" type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. <b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Remarks:  Vegetation passes dominance test.	

## SOIL

Sampling Point: DGAC-0914

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-5	10YR 3/2	100						Many roots
5-9	10YR 3/2	100					Loam	
9-12	10YR 2/2	98					Loam	
9-12	10YR 2/1	2						

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) (**LRR C**)
- ☐ 1 cm Muck (A9) (**LRR D**)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)

- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- ☐ 1 cm Muck (A9) (**LRR C**)
- ☐ 2 cm Muck (A10) (**LRR B**)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No ☒

Remarks:

No hydric indicators observed in soil profile.

## HYDROLOGY

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1) (**Nonriverine**)
- ☐ Sediment Deposits (B2) (**Nonriverine**)
- ☐ Drift Deposits (B3) (**Nonriverine**)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)

- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) (**Riverine**)
- ☐ Sediment Deposits (B2) (**Riverine**)
- ☐ Drift Deposits (B3) (**Riverine**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present? Yes \_\_\_\_\_ No \_\_\_\_\_ Depth (inches): \_\_\_\_\_

Water Table Present? Yes \_\_\_\_\_ No \_\_\_\_\_ Depth (inches): \_\_\_\_\_

Saturation Present? Yes \_\_\_\_\_ No \_\_\_\_\_ Depth (inches): \_\_\_\_\_  
(includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No hydrology indicators observed.

# WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: WDC DGAC-09152016-2-IN City/County: Davis County Sampling Date: 9/15/2016  
 Applicant/Owner: UDOT State: Utah Sampling Point: DGAC-09152016-2-IN  
 Investigator(s): DG/AC Section, Township, Range: 26 4N 2W  
 Landform (hillslope, terrace, etc.): terrace/depression Local relief (concave, convex, none): concave Slope (%): 0%  
 Subregion (LRR): D Lat: 41.05139769 Long: -112.032856 Datum: D WGS 1983  
 Soil Map Unit Name: Ford loam, 0 to 1 percent slopes NWI classification: PEM1C

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)  
 Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐  
 Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Remarks: Sampled area is a wetland.	

## VEGETATION – Use scientific names of plants.

<b>Tree Stratum</b> (Plot size: _____) 1. _____ 2. _____ 3. _____ 4. _____ _____ = Total Cover <b>Sapling/Shrub Stratum</b> (Plot size: _____) 1. _____ 2. _____ 3. _____ 4. _____ 5. _____ _____ = Total Cover <b>Herb Stratum</b> (Plot size: <u>5 ft. radius</u> ) 1. <u>Distichlis spicata</u> <u>150%</u> <u>Yes</u> <u>FAC</u> 2. <u>Hordeum jubatum</u> <u>10%</u> <u></u> <u>FAC</u> 3. <u>Agrostis exarata</u> <u>10%</u> <u></u> <u>FACW</u> 4. <u>Thinopyrum intermedium</u> <u>15%</u> <u></u> <u>NL</u> 5. _____ 6. _____ 7. _____ 8. _____ _____ = Total Cover <b>Woody Vine Stratum</b> (Plot size: _____) 1. _____ 2. _____ _____ = Total Cover % Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B) <b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____ <b>Hydrophytic Vegetation Indicators:</b> <input checked="" type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. <b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
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Remarks:

Drainage with lush salt grass. Leads to wetter patch with Juncus and Phragmites.

# SOIL

Sampling Point: DGAC-0914

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-2	10YR 2/2	100%					organic	
2-4	10YR 3/1	100%					Loam	
4-8	10YR 3/1	90%	10YR 5/2	10%				
8-11	10YR 5/2	60%						
	10YR 4/2	30%	Gley1 2.5/N	10%				
11-16	10YR 5/2	60%						
	10YR 4/2	20%	Gley1 2.5/N	20%				

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) (**LRR C**)
- ☐ 1 cm Muck (A9) (**LRR D**)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)

- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☒ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- ☐ 1 cm Muck (A9) (**LRR C**)
- ☐ 2 cm Muck (A10) (**LRR B**)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes ☒ No ☐

Remarks:

Soil profile fits Depleted Matrix (F3) indicator.

# HYDROLOGY

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1) (**Nonriverine**)
- ☐ Sediment Deposits (B2) (**Nonriverine**)
- ☐ Drift Deposits (B3) (**Nonriverine**)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☒ Water-Stained Leaves (B9)

- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) (**Riverine**)
- ☐ Sediment Deposits (B2) (**Riverine**)
- ☐ Drift Deposits (B3) (**Riverine**)
- ☒ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present? Yes ☐ No ☒ Depth (inches): \_\_\_\_\_

Water Table Present? Yes ☐ No ☒ Depth (inches): \_\_\_\_\_

Saturation Present? Yes ☐ No ☒ Depth (inches): \_\_\_\_\_  
(includes capillary fringe)

**Wetland Hydrology Present?** Yes ☒ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Hydrology indicator (B9) observed.



# WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: WDC DGAC-09152016-2-OUT City/County: Davis County Sampling Date: 9/15/2016  
 Applicant/Owner: UDOT State: Utah Sampling Point: DGAC-09152016-2-OUT  
 Investigator(s): DG/AC Section, Township, Range: 26 4N 2W  
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): none Slope (%): 0%  
 Subregion (LRR): D Lat: 41.05138281 Long: -112.0327699 Datum: D WGS 1983  
 Soil Map Unit Name: Ford loam, 0 to 1 percent slopes NWI classification: PEM1C

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)  
 Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐  
 Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Hydric Soil Present? Yes <input type="checkbox"/> No <input type="checkbox"/>	
Wetland Hydrology Present? Yes <input type="checkbox"/> No <input type="checkbox"/>	
Remarks: Upland vegetation. Didn't sample soils.	

## VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: _____ (A)  Total Number of Dominant Species Across All Strata: _____ (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
_____ = Total Cover				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species <u>15</u> x 3 = <u>45</u> FACU species _____ x 4 = _____ UPL species <u>100</u> x 5 = <u>500</u> Column Totals: <u>115</u> (A) <u>545</u> (B)  Prevalence Index = B/A = <u>4.74</u>
<b>Sapling/Shrub Stratum (Plot size: _____)</b> 1. _____ 2. _____ 3. _____ 4. _____ 5. _____ _____ = Total Cover				
<b>Herb Stratum (Plot size: <u>5 ft. radius</u>)</b> 1. <u>Thinopyrum intermedium</u> <u>100%</u> Yes <u>NL</u> 2. <u>Distichlis spicata</u> <u>15%</u> <u>FAC</u> 3. _____ 4. _____ 5. _____ 6. _____ 7. _____ 8. _____ <u>115%</u> = Total Cover				
<b>Woody Vine Stratum (Plot size: _____)</b> 1. _____ 2. _____ _____ = Total Cover				
% Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____				
Remarks: Upland intermediate wheat site.				<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.  <b>Hydrophytic Vegetation Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>

## SOIL

Sampling Point: DGAC-091

[illegible]

## HYDROLOGY

Wetland Hydrology Indicators:		
Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (2 or more required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) ( <b>Riverine</b> )
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) ( <b>Riverine</b> )
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) ( <b>Riverine</b> )
<input type="checkbox"/> Water Marks (B1) ( <b>Nonriverine</b> )	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) ( <b>Nonriverine</b> )	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3) ( <b>Nonriverine</b> )	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present?    Yes <input type="checkbox"/> No <input type="checkbox"/> Depth (inches): _____ Water Table Present?    Yes <input type="checkbox"/> No <input type="checkbox"/> Depth (inches): _____ Saturation Present?    Yes <input type="checkbox"/> No <input type="checkbox"/> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:  Dry. No indicators observed.		

# WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: WDC DGAC-09152016-3-OUT City/County: Davis County Sampling Date: 9/15/2016  
 Applicant/Owner: UDOT State: Utah Sampling Point: DGAC-09152016-3-OUT  
 Investigator(s): DG/AC Section, Township, Range: 26 4N 2W  
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): concave Slope (%): <1%  
 Subregion (LRR): D Lat: 41.05159429 Long: -112.0332036 Datum: D WGS 1983  
 Soil Map Unit Name: Ford loam, 0 to 1 percent slopes NWI classification: PEM1C

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)  
 Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐  
 Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Remarks:	

## VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)  Total Number of Dominant Species Across All Strata: <u>2</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
_____ = Total Cover				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B)  Prevalence Index = B/A = _____
<b>Sapling/Shrub Stratum (Plot size: _____)</b> 1. _____ 2. _____ 3. _____ 4. _____ 5. _____ _____ = Total Cover				
<b>Herb Stratum (Plot size: <u>5 ft. radius</u>)</b> 1. <u>Carex praeegracilis</u> <u>150%</u> <u>Yes</u> <u>FACW</u> 2. <u>Distichlis spicata</u> <u>80%</u> <u>Yes</u> <u>FAC</u> 3. <u>Juncus arcticus</u> <u>10%</u> <u></u> <u>FACW</u> 4. _____ 5. _____ 6. _____ 7. _____ 8. _____ _____ = Total Cover				
<b>Woody Vine Stratum (Plot size: _____)</b> 1. _____ 2. _____ _____ = Total Cover				
% Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____				
Remarks:				<b>Hydrophytic Vegetation Indicators:</b> <input checked="" type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>				
Vegetation passes dominance test.				

## SOIL

Sampling Point: DGAC-0914

### Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-3	10YR 2/1	100%						Root matter/peaty.
3-7	10YR 3/2	94%	10YR 6/2	2%	D	M	ClLoam	
			10YR 2/1	2%	C	M		
			10YR 4/6	2%	C	M		
8-12	10YR 4/2	100%					SaClLoam	
12-16	7.5YR 4/2	80%	10YR 2/1	20%	C	M	Clay	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

### Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) (**LRR C**)
- ☐ 1 cm Muck (A9) (**LRR D**)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)

- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

### Indicators for Problematic Hydric Soils<sup>3</sup>:

- ☐ 1 cm Muck (A9) (**LRR C**)
- ☐ 2 cm Muck (A10) (**LRR B**)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

### Restrictive Layer (if present):

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes \_\_\_\_\_ No ☒

Remarks:

Layer 3-7: 10YR 4/6 occurs in band around 7".

## HYDROLOGY

### Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1) (**Nonriverine**)
- ☐ Sediment Deposits (B2) (**Nonriverine**)
- ☐ Drift Deposits (B3) (**Nonriverine**)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)

- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) (**Riverine**)
- ☐ Sediment Deposits (B2) (**Riverine**)
- ☐ Drift Deposits (B3) (**Riverine**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☒ FAC-Neutral Test (D5)

### Field Observations:

Surface Water Present? Yes \_\_\_\_\_ No ☒ Depth (inches): \_\_\_\_\_

Water Table Present? Yes \_\_\_\_\_ No ☒ Depth (inches): \_\_\_\_\_

Saturation Present? Yes \_\_\_\_\_ No ☒ Depth (inches): \_\_\_\_\_  
(includes capillary fringe)

Wetland Hydrology Present? Yes \_\_\_\_\_ No ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Dry season.

# WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: WDC DGAC-09152016-4-IN City/County: Davis County Sampling Date: 9/15/2016  
 Applicant/Owner: UDOT State: Utah Sampling Point: DGAC-09152016-4  
 Investigator(s): DG/AC Section, Township, Range: 26 4N 2W  
 Landform (hillslope, terrace, etc.): terrace/depression Local relief (concave, convex, none): concave Slope (%): 1%  
 Subregion (LRR): D Lat: 41.05154836 Long: -112.0319999 Datum: D WGS 1983  
 Soil Map Unit Name: Ford loam, 0 to 1 percent slopes NWI classification: PEM1C

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)  
 Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐  
 Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
Remarks:  Sampled area is a wetland.			

## VEGETATION – Use scientific names of plants.

<b>Tree Stratum</b> (Plot size: _____) 1. _____ 2. _____ 3. _____ 4. _____ _____ = Total Cover <b>Sapling/Shrub Stratum</b> (Plot size: _____) 1. _____ 2. _____ 3. _____ 4. _____ 5. _____ _____ = Total Cover <b>Herb Stratum</b> (Plot size: <u>5 ft. radius</u> ) 1. <u>Distichlis spicata</u> <u>60%</u> <u>Yes</u> <u>FAC</u> 2. <u>Suaeda occidentalis</u> <u>30%</u> <u>Yes</u> <u>FACW</u> 3. <u>Atriplex micrantha</u> <u>5%</u> <u></u> <u>NL</u> 4. _____ 5. _____ 6. _____ 7. _____ 8. _____ _____ = Total Cover <b>Woody Vine Stratum</b> (Plot size: _____) 1. _____ 2. _____ _____ = Total Cover % Bare Ground in Herb Stratum <u>5%</u> % Cover of Biotic Crust _____	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B) <b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____ <b>Hydrophytic Vegetation Indicators:</b> <input checked="" type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. <b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Remarks:  Depression with salt grass and seepweed.	



# SOIL

Sampling Point: DGAC-0914

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-1	10YR 3/3	100%						organic matter- loose
1-6	10YR 3/2	96%	10YR 4/6	2%			SaLoam	
			10YR 2/1	2%				
6-8	10YR 3/2	95%	10YR 4/6	5%			SaLoam	
8-14	10YR 2/2	85%	10YR 3/6	15%			SaLoam	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

☐ Histosol (A1)  
☐ Histic Epipedon (A2)  
☐ Black Histic (A3)  
☐ Hydrogen Sulfide (A4)  
☐ Stratified Layers (A5) (**LRR C**)  
☐ 1 cm Muck (A9) (**LRR D**)  
☐ Depleted Below Dark Surface (A11)  
☐ Thick Dark Surface (A12)  
☐ Sandy Mucky Mineral (S1)  
☐ Sandy Gleyed Matrix (S4)

☐ Sandy Redox (S5)  
☐ Stripped Matrix (S6)  
☐ Loamy Mucky Mineral (F1)  
☐ Loamy Gleyed Matrix (F2)  
☐ Depleted Matrix (F3)  
☒ Redox Dark Surface (F6)  
☐ Depleted Dark Surface (F7)  
☐ Redox Depressions (F8)  
☐ Vernal Pools (F9)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

☐ 1 cm Muck (A9) (**LRR C**)  
☐ 2 cm Muck (A10) (**LRR B**)  
☐ Reduced Vertic (F18)  
☐ Red Parent Material (TF2)  
☐ Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes ☒ No ☐

Remarks:

Prominent iron (4/6-3/6). Redox layer is 4+ inches but occurs throughout two layers.

# HYDROLOGY

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one required; check all that apply)

☐ Surface Water (A1)  
☐ High Water Table (A2)  
☐ Saturation (A3)  
☐ Water Marks (B1) (**Nonriverine**)  
☐ Sediment Deposits (B2) (**Nonriverine**)  
☐ Drift Deposits (B3) (**Nonriverine**)  
☒ Surface Soil Cracks (B6)  
☐ Inundation Visible on Aerial Imagery (B7)  
☐ Water-Stained Leaves (B9)

☐ Salt Crust (B11)  
☐ Biotic Crust (B12)  
☐ Aquatic Invertebrates (B13)  
☐ Hydrogen Sulfide Odor (C1)  
☐ Oxidized Rhizospheres along Living Roots (C3)  
☐ Presence of Reduced Iron (C4)  
☐ Recent Iron Reduction in Tilled Soils (C6)  
☐ Thin Muck Surface (C7)  
☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

☐ Water Marks (B1) (**Riverine**)  
☐ Sediment Deposits (B2) (**Riverine**)  
☐ Drift Deposits (B3) (**Riverine**)  
☐ Drainage Patterns (B10)  
☐ Dry-Season Water Table (C2)  
☐ Crayfish Burrows (C8)  
☐ Saturation Visible on Aerial Imagery (C9)  
☐ Shallow Aquitard (D3)  
☒ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present? Yes ☐ No ☒ Depth (inches): \_\_\_\_\_

Water Table Present? Yes ☐ No ☒ Depth (inches): \_\_\_\_\_

Saturation Present? Yes ☐ No ☒ Depth (inches): \_\_\_\_\_  
(includes capillary fringe)

**Wetland Hydrology Present?** Yes ☒ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Hydrology indicator (B6) observed.

# WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: WDC DGAC-09152016-4-OUT City/County: Davis County Sampling Date: 9/15/2016  
 Applicant/Owner: UDOT State: Utah Sampling Point: DGAC-09152016-4-OUT  
 Investigator(s): DG/AC Section, Township, Range: 26 4N 2W  
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): none Slope (%): 2%  
 Subregion (LRR): D Lat: 41.05161763 Long: -112.0320424 Datum: D WGS 1983  
 Soil Map Unit Name: Ford loam, 0 to 1 percent slopes NWI classification: PEM1C

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)  
 Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐  
 Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Hydric Soil Present? Yes <input type="checkbox"/> No <input type="checkbox"/>	
Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Remarks:  Upland vegetation. Didn't sample soils.	

## VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)  Total Number of Dominant Species Across All Strata: <u>1</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
_____ = Total Cover				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species <u>10</u> x 3 = <u>30</u> FACU species _____ x 4 = _____ UPL species <u>90</u> x 5 = <u>450</u> Column Totals: <u>100</u> (A) <u>480</u> (B)  Prevalence Index = B/A = <u>4.8</u>
<b>Sapling/Shrub Stratum</b> (Plot size: _____)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
_____ = Total Cover				
<b>Herb Stratum</b> (Plot size: <u>5 ft. radius</u> )				<b>Hydrophytic Vegetation Indicators:</b> ___ Dominance Test is >50% ___ Prevalence Index is ≤3.0 <sup>1</sup> ___ Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.  <b>Hydrophytic Vegetation Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
1. <u>Thinopyrum intermedium</u>	<u>90%</u>	<u>Y</u>	<u>NL</u>	
2. <u>Lepidium latifolium</u>	<u>10%</u>		<u>FAC</u>	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
_____ = Total Cover				
<b>Woody Vine Stratum</b> (Plot size: _____)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
_____ = Total Cover				
% Bare Ground in Herb Stratum _____	% Cover of Biotic Crust _____			
Remarks:  Upland area with intermediate wheat.				

## SOIL

Sampling Point: DGAC-091 

[illegible]

## HYDROLOGY

Wetland Hydrology Indicators:		
Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (2 or more required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) ( <b>Riverine</b> )
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) ( <b>Riverine</b> )
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) ( <b>Riverine</b> )
<input type="checkbox"/> Water Marks (B1) ( <b>Nonriverine</b> )	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) ( <b>Nonriverine</b> )	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3) ( <b>Nonriverine</b> )	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present?    Yes <input type="checkbox"/> No <input type="checkbox"/> Depth (inches): _____ Water Table Present?    Yes <input type="checkbox"/> No <input type="checkbox"/> Depth (inches): _____ Saturation Present?    Yes <input type="checkbox"/> No <input type="checkbox"/> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		
Dry. No indicators observed.		

# WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: WDC DGAC-09152016-5-IN City/County: Davis County Sampling Date: 9/15/2016  
 Applicant/Owner: UDOT State: Utah Sampling Point: DGAC-09152016-5-IN  
 Investigator(s): DG/AC Section, Township, Range: 26 4 N 2W  
 Landform (hillslope, terrace, etc.): terrace/depression Local relief (concave, convex, none): concave Slope (%): 0%  
 Subregion (LRR): D Lat: 41.05180644 Long: -112.0313979 Datum: D WGS 1983  
 Soil Map Unit Name: Ford loam, 0 to 1 percent slopes NWI classification: PEM1C

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)  
 Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐  
 Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Remarks: Depression with dominant <i>Hordeum jubatum</i> .	

## VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)  Total Number of Dominant Species Across All Strata: <u>2</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
_____ = Total Cover				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B)  Prevalence Index = B/A = _____
<b>Sapling/Shrub Stratum (Plot size: _____)</b> 1. _____ 2. _____ 3. _____ 4. _____ 5. _____ _____ = Total Cover				
<b>Herb Stratum (Plot size: <u>5 ft. radius</u>)</b> 1. <i>Hordeum jubatum</i> <u>70%</u> Yes <u>FAC</u> 2. <i>Polypogon monspeliensis</i> <u>20%</u> Yes <u>FACW</u> 3. <i>Lepidium latifolium</i> <u>3%</u> <u>FAC</u> 4. <i>Distichlis spicata</i> <u>5%</u> <u>FAC</u> 5. <i>Puccinellia nuttalliana</i> <u>2%</u> <u>FACW</u> 6. _____ 7. _____ 8. _____ _____ = Total Cover				
<b>Woody Vine Stratum (Plot size: _____)</b> 1. _____ 2. _____ _____ = Total Cover				
% Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____				
Remarks: Vegetation passes dominance test.				<b>Hydrophytic Vegetation Indicators:</b> <input checked="" type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.  <b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>

# SOIL

Sampling Point: DGAC-0914

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-1.5	10YR 2/2	100%						organic matter
1.5-4	10YR 3/2	100%					Loam	
4-12	10YR 4/2	80%	10YR 2/2	10%	C	M	Loam	Mn
			10YR 3/4	10%	C	M		

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) (**LRR C**)
- ☐ 1 cm Muck (A9) (**LRR D**)
- ☒ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)

- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☒ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- ☐ 1 cm Muck (A9) (**LRR C**)
- ☐ 2 cm Muck (A10) (**LRR B**)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present? Yes ☒ No ☐**

Remarks:

Unable to obtain decent core past 7". Cemented layer at 16".

# HYDROLOGY

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1) (**Nonriverine**)
- ☐ Sediment Deposits (B2) (**Nonriverine**)
- ☐ Drift Deposits (B3) (**Nonriverine**)
- ☒ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)

- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) (**Riverine**)
- ☐ Sediment Deposits (B2) (**Riverine**)
- ☐ Drift Deposits (B3) (**Riverine**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☒ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present? Yes ☐ No ☐ Depth (inches): \_\_\_\_\_

Water Table Present? Yes ☐ No ☐ Depth (inches): \_\_\_\_\_

Saturation Present? Yes ☐ No ☐ Depth (inches): \_\_\_\_\_  
(includes capillary fringe)

**Wetland Hydrology Present? Yes ☒ No ☐**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Hydrology indicator (B6) observed.



# WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: WDC DGAC-09152016-5-OUT City/County: Davis County Sampling Date: 9/16/2015  
 Applicant/Owner: UDOT State: Utah Sampling Point: DGAC-09152016-5-OUT  
 Investigator(s): DG/AC Section, Township, Range: 26 4N 2W  
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): concave Slope (%): 1%  
 Subregion (LRR): D Lat: 41.05192005 Long: -112.0314815 Datum: D WGS 1983  
 Soil Map Unit Name: Ford loam, 0 to 1 percent slopes NWI classification: PEM1C

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)  
 Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐  
 Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Remarks:  Sampled area is not a wetland.	

## VEGETATION – Use scientific names of plants.

<b>Tree Stratum</b> (Plot size: _____) 1. _____ 2. _____ 3. _____ 4. _____ _____ = Total Cover <b>Sapling/Shrub Stratum</b> (Plot size: _____) 1. _____ 2. _____ 3. _____ 4. _____ 5. _____ _____ = Total Cover <b>Herb Stratum</b> (Plot size: <u>5 ft radius</u> ) 1. <u>Distichlis spicata</u> <u>100%</u> <u>Yes</u> <u>FAC</u> 2. <u>Puccinellia nuttalliana</u> <u>50%</u> <u>Yes</u> <u>FACW</u> 3. <u>Suaeda occidentalis</u> <u>5%</u> <u></u> <u>FACW</u> 4. <u>Thinopyrum intermedium</u> <u>2%</u> <u></u> <u>NL</u> 5. <u>Polypogon monspeliensis</u> <u>1%</u> <u></u> <u>FACW</u> 6. <u>Chenopodium album</u> <u>1%</u> <u></u> <u>FACU</u> 7. <u>Ambrosia artemisiifolia</u> <u>1%</u> <u></u> <u>FACU</u> 8. _____ _____ = Total Cover <b>Woody Vine Stratum</b> (Plot size: _____) 1. _____ 2. _____ _____ = Total Cover % Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B) <b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____ <b>Hydrophytic Vegetation Indicators:</b> <input checked="" type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. <b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
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Remarks:

Salt grass meadow with some intermediate wheat grass.

## SOIL

Sampling Point: DGAC-0914

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-3	10YR 3/3						organic	
3-5	10YR 3/2	100%					SiLoam	
5-8	10YR 4/1	95%					SiLoam	
	10YR 5/2	5%						
8-14	10YR 4/3	100%					SiLoam	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

☐ Histosol (A1)  
☐ Histic Epipedon (A2)  
☐ Black Histic (A3)  
☐ Hydrogen Sulfide (A4)  
☐ Stratified Layers (A5) (**LRR C**)  
☐ 1 cm Muck (A9) (**LRR D**)  
☐ Depleted Below Dark Surface (A11)  
☐ Thick Dark Surface (A12)  
☐ Sandy Mucky Mineral (S1)  
☐ Sandy Gleyed Matrix (S4)

☐ Sandy Redox (S5)  
☐ Stripped Matrix (S6)  
☐ Loamy Mucky Mineral (F1)  
☐ Loamy Gleyed Matrix (F2)  
☐ Depleted Matrix (F3)  
☐ Redox Dark Surface (F6)  
☐ Depleted Dark Surface (F7)  
☐ Redox Depressions (F8)  
☐ Vernal Pools (F9)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

☐ 1 cm Muck (A9) (**LRR C**)  
☐ 2 cm Muck (A10) (**LRR B**)  
☐ Reduced Vertic (F18)  
☐ Red Parent Material (TF2)  
☐ Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No ☒

Remarks:

No hydric indicators observed in soil profile.

## HYDROLOGY

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one required; check all that apply)

☐ Surface Water (A1)  
☐ High Water Table (A2)  
☐ Saturation (A3)  
☐ Water Marks (B1) (**Nonriverine**)  
☐ Sediment Deposits (B2) (**Nonriverine**)  
☐ Drift Deposits (B3) (**Nonriverine**)  
☐ Surface Soil Cracks (B6)  
☐ Inundation Visible on Aerial Imagery (B7)  
☒ Water-Stained Leaves (B9)

☐ Salt Crust (B11)  
☐ Biotic Crust (B12)  
☐ Aquatic Invertebrates (B13)  
☐ Hydrogen Sulfide Odor (C1)  
☐ Oxidized Rhizospheres along Living Roots (C3)  
☐ Presence of Reduced Iron (C4)  
☐ Recent Iron Reduction in Tilled Soils (C6)  
☐ Thin Muck Surface (C7)  
☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

☐ Water Marks (B1) (**Riverine**)  
☐ Sediment Deposits (B2) (**Riverine**)  
☐ Drift Deposits (B3) (**Riverine**)  
☐ Drainage Patterns (B10)  
☐ Dry-Season Water Table (C2)  
☐ Crayfish Burrows (C8)  
☐ Saturation Visible on Aerial Imagery (C9)  
☐ Shallow Aquitard (D3)  
☒ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present? Yes \_\_\_\_\_ No \_\_\_\_\_ Depth (inches): \_\_\_\_\_

Water Table Present? Yes \_\_\_\_\_ No \_\_\_\_\_ Depth (inches): \_\_\_\_\_

Saturation Present? Yes \_\_\_\_\_ No \_\_\_\_\_ Depth (inches): \_\_\_\_\_  
(includes capillary fringe)

**Wetland Hydrology Present?** Yes ☒ No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Hydrology indicator (B9) observed.

# WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: WDC DGAC-09162016-1-OUT City/County: Davis County Sampling Date: 9/16/2016  
 Applicant/Owner: UDOT State: Utah Sampling Point: DGAC-09162016-1  
 Investigator(s): DG/AC Section, Township, Range: 26 4N 2W  
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): none Slope (%): 1%  
 Subregion (LRR): D Lat: 41.05251704 Long: -112.0305032 Datum: D WGS 1983  
 Soil Map Unit Name: Ford loam, 0 to 1 percent slopes NWI classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____	
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	
Remarks: Point established just outside of wetland boundary, up from in point.	

## VEGETATION – Use scientific names of plants.

<b>Tree Stratum</b> (Plot size: _____) 1. _____ 2. _____ 3. _____ 4. _____ _____ = Total Cover <b>Sapling/Shrub Stratum</b> (Plot size: _____) 1. _____ 2. _____ 3. _____ 4. _____ 5. _____ _____ = Total Cover <b>Herb Stratum</b> (Plot size: <u>5 ft. radius</u> ) 1. <u>Distichlis spicata</u> <u>70%</u> <u>Yes</u> <u>FAC</u> 2. <u>Thinopyrum intermedium</u> <u>40%</u> <u>Yes</u> <u>NL</u> 3. <u>Puccinellia nuttalliana</u> <u>25%</u> <u></u> <u>FACW</u> 4. <u>Juncus arcticus</u> <u>1%</u> <u></u> <u>FACW</u> 5. <u>Hordeum jubatum</u> <u>5%</u> <u></u> <u>FAC</u> 6. <u>Panicum capillare</u> <u>2%</u> <u></u> <u>FACU</u> 7. <u>Polypogon monspeliensis</u> <u>25%</u> <u></u> <u>FACW</u> 8. <u>Atriplex micrantha</u> <u>1%</u> <u></u> <u>NL</u> _____ = Total Cover <b>Woody Vine Stratum</b> (Plot size: _____) 1. _____ 2. _____ _____ = Total Cover % Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50%</u> (A/B) <b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species <u>51</u> x 2 = <u>102</u> FAC species <u>75</u> x 3 = <u>225</u> FACU species <u>2</u> x 4 = <u>8</u> UPL species <u>41</u> x 5 = <u>205</u> Column Totals: <u>169</u> (A) <u>540</u> (B) Prevalence Index = B/A = <u>3.19</u> <b>Hydrophytic Vegetation Indicators:</b> ___ Dominance Test is >50% ___ Prevalence Index is ≤3.0 <sup>1</sup> ___ Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. <b>Hydrophytic Vegetation Present?</b> Yes _____ No <input checked="" type="checkbox"/>
Remarks: Sampled area is not a wetland.	

# SOIL

Sampling Point: DGAC-0916

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-4	10YR 2/2	100%					organic	
4-8	10YR 4/2	95%	10YR 4/6	5%	C	M/PL	SaLoam	
8-13	10YR 4/3	80%					SaLoam	
	10YR 3/2	20%						

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) (**LRR C**)
- ☐ 1 cm Muck (A9) (**LRR D**)
- ☒ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)

- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☒ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- ☐ 1 cm Muck (A9) (**LRR C**)
- ☐ 2 cm Muck (A10) (**LRR B**)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes ☒ No ☐

Remarks:

# HYDROLOGY

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1) (**Nonriverine**)
- ☐ Sediment Deposits (B2) (**Nonriverine**)
- ☐ Drift Deposits (B3) (**Nonriverine**)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)

- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☒ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) (**Riverine**)
- ☐ Sediment Deposits (B2) (**Riverine**)
- ☐ Drift Deposits (B3) (**Riverine**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present? Yes ☐ No ☒ Depth (inches): \_\_\_\_\_

Water Table Present? Yes ☐ No ☒ Depth (inches): \_\_\_\_\_

Saturation Present? Yes ☐ No ☒ Depth (inches): \_\_\_\_\_  
(includes capillary fringe)

**Wetland Hydrology Present?** Yes ☒ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Hydrology indicator (C3) observed.

# WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: WDC DGAC-09162016-1-IN City/County: Davis County Sampling Date: 9/16/2016  
 Applicant/Owner: UDOT State: Utah Sampling Point: DGAC-09162016-1  
 Investigator(s): DG/AC Section, Township, Range: 26 4N 2W  
 Landform (hillslope, terrace, etc.): terrace/depression Local relief (concave, convex, none): concave Slope (%): 0%  
 Subregion (LRR): D Lat: 41.05244552 Long: -112.0305434 Datum: D WGS 1983  
 Soil Map Unit Name: Ford loam, 0 to 1 percent slopes NWI classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____	
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	
Remarks:  Sampled area is a wetland.	

## VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)  Total Number of Dominant Species Across All Strata: <u>2</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
_____ = Total Cover				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B)  Prevalence Index = B/A = _____
<b>Sapling/Shrub Stratum (Plot size: _____)</b> 1. _____ 2. _____ 3. _____ 4. _____ 5. _____ _____ = Total Cover				
<b>Herb Stratum (Plot size: <u>5 ft. radius</u>)</b> 1. <u>Distichlis spicata</u> <u>100%</u> Yes <u>FAC</u> 2. <u>Hordeum jubatum</u> <u>10%</u> _____ <u>FAC</u> 3. <u>Puccinellia nuttalliana</u> <u>50%</u> Yes <u>FACW</u> 4. <u>Lepidium latifolium</u> <u>2%</u> _____ <u>FAC</u> 5. <u>Thinopyrum intermedium</u> <u>2%</u> _____ <u>NL</u> 6. <u>Atriplex micrantha</u> <u>&lt;1%</u> _____ <u>NL</u> 7. <u>Suaeda occidentalis</u> <u>&lt;1%</u> _____ <u>FACW</u> 8. _____ <u>164%</u> = Total Cover				
<b>Woody Vine Stratum (Plot size: _____)</b> 1. _____ 2. _____ _____ = Total Cover				
% Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____				

**Hydrophytic Vegetation Indicators:**  
☒ Dominance Test is >50%  
☐ Prevalence Index is ≤3.0<sup>1</sup>  
☐ Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)  
☐ Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)

<sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes ☒ No \_\_\_\_\_

Remarks:  
Salt grass meadow with salt grass-seepweed fringe. Adjacent intermediate wheat upland bleeds into meadow.



## SOIL

Sampling Point: DGAC-0916

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-2.5	10YR 2/2	100%					organic	
2.5-4	10YR 2/2	95%	10YR 4/1	5%	D	M	ClLoam	
4-8	10YR 4/1	99%	10YR 4/6	1%	C	M	SiLoam	
8-14	10YR 4/2	75%	10YR 2/1	20%	C	M	SaClLoam	
			10YR 5/2	5%	D	M		

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) (**LRR C**)
- ☐ 1 cm Muck (A9) (**LRR D**)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)

- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☒ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- ☐ 1 cm Muck (A9) (**LRR C**)
- ☐ 2 cm Muck (A10) (**LRR B**)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes ☒ No ☐

Remarks:

Soil profile fits Depleted Matrix (F3) indicator.

## HYDROLOGY

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1) (**Nonriverine**)
- ☐ Sediment Deposits (B2) (**Nonriverine**)
- ☐ Drift Deposits (B3) (**Nonriverine**)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☒ Water-Stained Leaves (B9)

- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) (**Riverine**)
- ☐ Sediment Deposits (B2) (**Riverine**)
- ☐ Drift Deposits (B3) (**Riverine**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☒ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present? Yes ☐ No ☒ Depth (inches): \_\_\_\_\_

Water Table Present? Yes ☐ No ☒ Depth (inches): \_\_\_\_\_

Saturation Present? Yes ☐ No ☒ Depth (inches): \_\_\_\_\_  
(includes capillary fringe)

**Wetland Hydrology Present?** Yes ☒ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Hydrology indicator (B9) observed.

# WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: WDC DGAC-09162016-2-IN City/County: Davis County Sampling Date: 9/16/2016  
 Applicant/Owner: UDOT State: Utah Sampling Point: DGAC-09162016-2  
 Investigator(s): DG/AC Section, Township, Range: 26 4N 2W  
 Landform (hillslope, terrace, etc.): terrace/depression Local relief (concave, convex, none): concave Slope (%): 1%  
 Subregion (LRR): D Lat: 41.0512777 Long: -112.0318571 Datum: D WGS 1983  
 Soil Map Unit Name: Ford loam, 0 to 1 percent slopes NWI classification: PEM1C

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)  
 Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐  
 Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Remarks: Problematic hydrology for seasonal wetland.	

## VEGETATION – Use scientific names of plants.

<b>Tree Stratum</b> (Plot size: _____) 1. _____ 2. _____ 3. _____ 4. _____ _____ = Total Cover <b>Sapling/Shrub Stratum</b> (Plot size: _____) 1. _____ 2. _____ 3. _____ 4. _____ 5. _____ _____ = Total Cover <b>Herb Stratum</b> (Plot size: <u>5 ft. radius</u> ) 1. <u>Distichlis spicata</u> 50% Yes FAC 2. <u>Hordeum jubatum</u> 30% Yes FAC 3. <u>Lepidium latifolium</u> 10% FAC 4. <u>Puccinellia nuttalliana</u> 5% FACW 5. <u>Ambrosia artemisifolia</u> 1% FACU 6. <u>Atriplex micrantha</u> 1% NL 7. <u>Eleocharis palustris</u> 1% OBL 8. _____ 98% = Total Cover <b>Woody Vine Stratum</b> (Plot size: _____) 1. _____ 2. _____ _____ = Total Cover % Bare Ground in Herb Stratum <u>2%</u> % Cover of Biotic Crust _____	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B) <b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____ <b>Hydrophytic Vegetation Indicators:</b> <input checked="" type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. <b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Remarks: Vegetation passes dominance test.	

# SOIL

Sampling Point: DGAC-0916

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-2.5	10YR 2/2	100%					organic	
2.5-5	10YR 3/2	100%					SaLoam	
5-7	10YR 3/2	95%	10YR 3/6	5%	C	PL/M	SaLoam	
7-12	10YR 3/2	80%	10YR 3/1	10%	C	M	SaLoam	
			10YR 4/6	10%	C	PL/M		

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) (**LRR C**)
- ☐ 1 cm Muck (A9) (**LRR D**)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)

- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☒ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- ☐ 1 cm Muck (A9) (**LRR C**)
- ☐ 2 cm Muck (A10) (**LRR B**)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes ☒ No ☐

Remarks:

Soil profile fits Redox Dark Surface (F6) indicator.

# HYDROLOGY

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1) (**Nonriverine**)
- ☐ Sediment Deposits (B2) (**Nonriverine**)
- ☐ Drift Deposits (B3) (**Nonriverine**)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)

- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) (**Riverine**)
- ☐ Sediment Deposits (B2) (**Riverine**)
- ☐ Drift Deposits (B3) (**Riverine**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present? Yes ☐ No ☐ Depth (inches): \_\_\_\_\_

Water Table Present? Yes ☐ No ☐ Depth (inches): \_\_\_\_\_

Saturation Present? Yes ☐ No ☐ Depth (inches): \_\_\_\_\_  
(includes capillary fringe)

**Wetland Hydrology Present?** Yes ☐ No ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Problematic hydrology. Dry season. No apparent hydrology indicators.

# WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: WDC DGAC-09162016-3-IN City/County: Davis County Sampling Date: 9/16/2016  
 Applicant/Owner: UDOT State: Utah Sampling Point: DGAC-09162016-3  
 Investigator(s): DG/AC Section, Township, Range: 26 4N 2W  
 Landform (hillslope, terrace, etc.): terrace/depression Local relief (concave, convex, none): concave Slope (%): 1%  
 Subregion (LRR): D Lat: 41.05123887 Long: -112.0305821 Datum: D WGS 1983  
 Soil Map Unit Name: Ford loam, 0 to 1 percent slopes NWI classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____	
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	
Remarks:  Sampled area is a wetland.	

## VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)  Total Number of Dominant Species Across All Strata: <u>2</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50%</u> (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
_____ = Total Cover				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species <u>41</u> x 2 = <u>82</u> FAC species <u>10</u> x 3 = <u>30</u> FACU species <u>40</u> x 4 = <u>160</u> UPL species <u>2</u> x 5 = <u>10</u> Column Totals: <u>93</u> (A) <u>282</u> (B)  Prevalence Index = B/A = <u>3.0</u>
<b>Sapling/Shrub Stratum</b> (Plot size: _____)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
_____ = Total Cover				
<b>Herb Stratum</b> (Plot size: <u>5 ft. radius</u> )				<b>Hydrophytic Vegetation Indicators:</b> _____ Dominance Test is >50% <input checked="" type="checkbox"/> Prevalence Index is ≤3.0 <sup>1</sup> _____ Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. <u>Suaeda occidentalis</u>	<u>40%</u>	<u>Yes</u>	<u>FACW</u>	
2. <u>Hordeum pusillum</u>	<u>40%</u>	<u>Yes</u>	<u>FACU</u>	
3. <u>Puccinellia nuttalliana</u>	<u>1%</u>		<u>FACW</u>	
4. <u>Distichlis spicata</u>	<u>10%</u>		<u>FAC</u>	
5. <u>Atriplex micrantha</u>	<u>2%</u>		<u>NL</u>	
6. <u>Lepidium latifolium</u>	<u>&lt;1%</u>			
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
_____ = Total Cover				
<b>Woody Vine Stratum</b> (Plot size: _____)				<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No _____
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
_____ = Total Cover				
% Bare Ground in Herb Stratum _____	% Cover of Biotic Crust _____			

Remarks:

Marginal vegetation. A lot of H. pusillum throughout. A. micrantha invading.

# SOIL

Sampling Point: DGAC-0916

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-2	10YR 2/2	200					organic	
2-14.5	10YR 4/2	95	10YR 5/6	6	C	M		
14.5-16+	10YR 2/1	80	Gley1 2.5/N	5	C	M		Mn
	10YR 4/2	15						

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) (**LRR C**)
- ☐ 1 cm Muck (A9) (**LRR D**)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)

- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☒ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- ☐ 1 cm Muck (A9) (**LRR C**)
- ☐ 2 cm Muck (A10) (**LRR B**)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes ☒ No ☐

Remarks:

Soil profile fits Depleted Matrix (F3) indicator.

# HYDROLOGY

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1) (**Nonriverine**)
- ☐ Sediment Deposits (B2) (**Nonriverine**)
- ☐ Drift Deposits (B3) (**Nonriverine**)
- ☒ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)

- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) (**Riverine**)
- ☐ Sediment Deposits (B2) (**Riverine**)
- ☐ Drift Deposits (B3) (**Riverine**)
- ☒ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☒ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present? Yes ☐ No ☒ Depth (inches): \_\_\_\_\_

Water Table Present? Yes ☐ No ☒ Depth (inches): \_\_\_\_\_

Saturation Present? Yes ☐ No ☒ Depth (inches): \_\_\_\_\_  
(includes capillary fringe)

**Wetland Hydrology Present?** Yes ☒ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Hydrology indicator (B6) observed.



# WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: WDC DGAC-09162016-3-OUT City/County: Davis County Sampling Date: 9/16/2016  
 Applicant/Owner: UDOT State: Utah Sampling Point: DGAC-09162016-3-OUT  
 Investigator(s): DG/AC Section, Township, Range: 26 4N 2W  
 Landform (hillslope, terrace, etc.): terrace/depression Local relief (concave, convex, none): concave Slope (%): 0%  
 Subregion (LRR): D Lat: 41.05125372 Long: -112.0306092 Datum: D WGS 1983  
 Soil Map Unit Name: Ford loam, 0 to 1 percent slopes NWI classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Hydric Soil Present? Yes _____ No _____	
Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	
Remarks:  Upland vegetation. Didn't sample soil.	

## VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)  Total Number of Dominant Species Across All Strata: <u>2</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50%</u> (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
_____ = Total Cover				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species <u>25</u> x 3 = <u>75</u> FACU species <u>15</u> x 4 = <u>60</u> UPL species <u>45</u> x 5 = <u>225</u> Column Totals: <u>85</u> (A) <u>360</u> (B)  Prevalence Index = B/A = <u>4.23</u>
<b>Sapling/Shrub Stratum</b> (Plot size: _____)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	<b>Hydrophytic Vegetation Indicators:</b> ___ Dominance Test is >50% ___ Prevalence Index is ≤3.0 <sup>1</sup> ___ Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
_____ = Total Cover				
<b>Herb Stratum</b> (Plot size: <u>5 ft. radius</u> )				
1. <u>Atriplex micrantha</u>	<u>45%</u>	<u>Yes</u>	<u>NL</u>	
2. <u>Distichlis spicata</u>	<u>25%</u>	<u>Yes</u>	<u>FAC</u>	
3. <u>Hordeum pussilum</u>	<u>15%</u>		<u>FACU</u>	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
4. <u>Puccinellia nuttalliana</u>	<u>&lt;1%</u>		<u>FACW</u>	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	<b>Hydrophytic Vegetation Present?</b> Yes _____ No <input checked="" type="checkbox"/>
_____ = Total Cover				
<b>Woody Vine Stratum</b> (Plot size: _____)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
_____ = Total Cover				
% Bare Ground in Herb Stratum <u>15%</u> % Cover of Biotic Crust _____				
Remarks:  Vegetation is not hydrophytic.				

## SOIL

Sampling Point: DGAC-0916

[illegible]

## HYDROLOGY

Wetland Hydrology Indicators:		
Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (2 or more required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) ( <b>Riverine</b> )
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) ( <b>Riverine</b> )
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) ( <b>Riverine</b> )
<input type="checkbox"/> Water Marks (B1) ( <b>Nonriverine</b> )	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) ( <b>Nonriverine</b> )	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3) ( <b>Nonriverine</b> )	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present?    Yes <input type="checkbox"/> No <input type="checkbox"/> Depth (inches): _____ Water Table Present?    Yes <input type="checkbox"/> No <input type="checkbox"/> Depth (inches): _____ Saturation Present?    Yes <input type="checkbox"/> No <input type="checkbox"/> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:  Dry site. No indicators observed.		

# WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: WDC DGAC-09162016-4-OUT City/County: Davis County Sampling Date: 9/16/2016  
 Applicant/Owner: UDOT State: Utah Sampling Point: DGAC-09162016-4-OUT  
 Investigator(s): DG/AC Section, Township, Range: 26 4N 2W  
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): concave Slope (%): 1%  
 Subregion (LRR): D Lat: 41.051787 Long: -112.029794 Datum: \_\_\_\_\_  
 Soil Map Unit Name: Ford loam, 0 to 1 percent slopes NWI classification: PEM1C

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology ☒ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/>	
Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	
Remarks: Sampled area dominated by saltgrass and lacking hydric indicators is not a wetland.	

## VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)  Total Number of Dominant Species Across All Strata: <u>1</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
_____ = Total Cover				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B)  Prevalence Index = B/A = _____
<b>Sapling/Shrub Stratum</b> (Plot size: _____)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
_____ = Total Cover				<b>Hydrophytic Vegetation Indicators:</b> <input checked="" type="checkbox"/> Dominance Test is >50% _____ Prevalence Index is ≤3.0 <sup>1</sup> _____ Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.  <b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No _____
<b>Herb Stratum</b> (Plot size: <u>5 ft. radius</u> )				
1. <u>Distichlis spicata</u>	<u>80%</u>	<u>Yes</u>	<u>FAC</u>	
2. <u>Hordeum jubatum</u>	<u>3%</u>		<u>FAC</u>	
3. <u>Atriplex micrantha</u>	<u>10%</u>		<u>NL</u>	
4. <u>Puccinellia nuttalliana</u>	<u>2%</u>		<u>FACW</u>	
5. <u>Suaeda occidentalis</u>	<u>5%</u>		<u>FACW</u>	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
_____ = Total Cover				
<b>Woody Vine Stratum</b> (Plot size: _____)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
_____ = Total Cover				
% Bare Ground in Herb Stratum _____	% Cover of Biotic Crust _____			

Remarks:  
Facultative-dominant community passes dominance test.

# SOIL

Sampling Point: DGAC-0914

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-3	10YR 2/2	100%					organic	
	10YR 4/3	80%					Loam	
3-4.5	10YR 3/1	20%					Loam	
4.5-11	10YR 4/2	60%	10YR 6/2	1%	D	M	SaClLoam	
	10YR 3/2	39%						

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

☐ Histosol (A1)  
☐ Histic Epipedon (A2)  
☐ Black Histic (A3)  
☐ Hydrogen Sulfide (A4)  
☐ Stratified Layers (A5) (**LRR C**)  
☐ 1 cm Muck (A9) (**LRR D**)  
☐ Depleted Below Dark Surface (A11)  
☐ Thick Dark Surface (A12)  
☐ Sandy Mucky Mineral (S1)  
☐ Sandy Gleyed Matrix (S4)

☐ Sandy Redox (S5)  
☐ Stripped Matrix (S6)  
☐ Loamy Mucky Mineral (F1)  
☐ Loamy Gleyed Matrix (F2)  
☐ Depleted Matrix (F3)  
☐ Redox Dark Surface (F6)  
☐ Depleted Dark Surface (F7)  
☐ Redox Depressions (F8)  
☐ Vernal Pools (F9)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

☐ 1 cm Muck (A9) (**LRR C**)  
☐ 2 cm Muck (A10) (**LRR B**)  
☐ Reduced Vertic (F18)  
☐ Red Parent Material (TF2)  
☐ Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No ☒

Remarks:

No hydric indicators observed in soil profile.

# HYDROLOGY

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one required; check all that apply)

☐ Surface Water (A1)  
☐ High Water Table (A2)  
☐ Saturation (A3)  
☐ Water Marks (B1) (**Nonriverine**)  
☐ Sediment Deposits (B2) (**Nonriverine**)  
☐ Drift Deposits (B3) (**Nonriverine**)  
☐ Surface Soil Cracks (B6)  
☐ Inundation Visible on Aerial Imagery (B7)  
☐ Water-Stained Leaves (B9)

☐ Salt Crust (B11)  
☐ Biotic Crust (B12)  
☐ Aquatic Invertebrates (B13)  
☐ Hydrogen Sulfide Odor (C1)  
☐ Oxidized Rhizospheres along Living Roots (C3)  
☐ Presence of Reduced Iron (C4)  
☐ Recent Iron Reduction in Tilled Soils (C6)  
☐ Thin Muck Surface (C7)  
☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

☐ Water Marks (B1) (**Riverine**)  
☐ Sediment Deposits (B2) (**Riverine**)  
☐ Drift Deposits (B3) (**Riverine**)  
☐ Drainage Patterns (B10)  
☐ Dry-Season Water Table (C2)  
☐ Crayfish Burrows (C8)  
☐ Saturation Visible on Aerial Imagery (C9)  
☐ Shallow Aquitard (D3)  
☒ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present? Yes \_\_\_\_\_ No \_\_\_\_\_ Depth (inches): \_\_\_\_\_

Water Table Present? Yes \_\_\_\_\_ No \_\_\_\_\_ Depth (inches): \_\_\_\_\_

Saturation Present? Yes \_\_\_\_\_ No \_\_\_\_\_ Depth (inches): \_\_\_\_\_  
(includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Dry. Wetland hydrology not indicated but observed during dry time of year for seasonal hydrology.

# WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: WDC DGAC-09162016-5-IN City/County: Davis County Sampling Date: 9/16/2016  
 Applicant/Owner: UDOT State: Utah Sampling Point: DGAC-09162016-5  
 Investigator(s): DG/AC Section, Township, Range: 26 4N 2W  
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): concave Slope (%): 1%  
 Subregion (LRR): D Lat: 41.05218836 Long: -112.0290628 Datum: D WGS 1983  
 Soil Map Unit Name: Ford loam, 0 to 1 percent slopes NWI classification: PEM1C

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)  
 Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐  
 Are Vegetation ☐, Soil ☒, or Hydrology ☒ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Remarks: Apparent wetland with problematic soil (high pH) and hydrology.	

## VEGETATION – Use scientific names of plants.

<b>Tree Stratum</b> (Plot size: _____) 1. _____ 2. _____ 3. _____ 4. _____ _____ = Total Cover <b>Sapling/Shrub Stratum</b> (Plot size: _____) 1. _____ 2. _____ 3. _____ 4. _____ 5. _____ _____ = Total Cover <b>Herb Stratum</b> (Plot size: <u>5 ft. radius</u> ) 1. <u>Distichlis spicata</u> <u>120%</u> <u>Yes</u> <u>FAC</u> 2. <u>Chenopodium album</u> <u>20%</u> <u></u> <u>FACU</u> 3. <u>Schoenoplectus pungens</u> <u>2%</u> <u></u> <u>OBL</u> 4. <u>Ambrosia artemisifolia</u> <u>1%</u> <u></u> <u>FACU</u> 5. <u>Eleocharis palustris</u> <u>1%</u> <u></u> <u>OBL</u> 6. <u>Hordeum jubatum</u> <u>1%</u> <u></u> <u>FAC</u> 7. <u>Polypogon monspeliensis</u> <u>3%</u> <u></u> <u>FACW</u> 8. _____ <u>148%</u> = Total Cover <b>Woody Vine Stratum</b> (Plot size: _____) 1. _____ 2. _____ _____ = Total Cover % Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B) <b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____ <b>Hydrophytic Vegetation Indicators:</b> <input checked="" type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. <b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
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Remarks:  
Interior of wetland beyond plot is dominated by E. palustris.



## SOIL

Sampling Point: DGAC-0916

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-3	10YR 2/2						organic	
3-5	10YR 4/2	100					Loam	
5-8	10YR 4/2	80	10YR 2/1	20			Loam	
8-11	10YR 4/2	60	10YR 2/1	40			SiLoam	
11-15+	10YR 4/2	50					SiLoam	
	10YR 2/1	50						

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

☐ Histosol (A1)  
☐ Histic Epipedon (A2)  
☐ Black Histic (A3)  
☐ Hydrogen Sulfide (A4)  
☐ Stratified Layers (A5) (**LRR C**)  
☐ 1 cm Muck (A9) (**LRR D**)  
☐ Depleted Below Dark Surface (A11)  
☐ Thick Dark Surface (A12)  
☐ Sandy Mucky Mineral (S1)  
☐ Sandy Gleyed Matrix (S4)

☐ Sandy Redox (S5)  
☐ Stripped Matrix (S6)  
☐ Loamy Mucky Mineral (F1)  
☐ Loamy Gleyed Matrix (F2)  
☐ Depleted Matrix (F3)  
☐ Redox Dark Surface (F6)  
☐ Depleted Dark Surface (F7)  
☐ Redox Depressions (F8)  
☐ Vernal Pools (F9)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

☐ 1 cm Muck (A9) (**LRR C**)  
☐ 2 cm Muck (A10) (**LRR B**)  
☐ Reduced Vertic (F18)  
☐ Red Parent Material (TF2)  
☐ Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No ☒

Remarks:

## HYDROLOGY

**Wetland Hydrology Indicators:**

**Primary Indicators (minimum of one required; check all that apply)**

☐ Surface Water (A1)  
☐ High Water Table (A2)  
☐ Saturation (A3)  
☐ Water Marks (B1) (**Nonriverine**)  
☐ Sediment Deposits (B2) (**Nonriverine**)  
☐ Drift Deposits (B3) (**Nonriverine**)  
☐ Surface Soil Cracks (B6)  
☐ Inundation Visible on Aerial Imagery (B7)  
☐ Water-Stained Leaves (B9)

☐ Salt Crust (B11)  
☐ Biotic Crust (B12)  
☐ Aquatic Invertebrates (B13)  
☐ Hydrogen Sulfide Odor (C1)  
☐ Oxidized Rhizospheres along Living Roots (C3)  
☐ Presence of Reduced Iron (C4)  
☐ Recent Iron Reduction in Tilled Soils (C6)  
☐ Thin Muck Surface (C7)  
☐ Other (Explain in Remarks)

**Secondary Indicators (2 or more required)**

☐ Water Marks (B1) (**Riverine**)  
☐ Sediment Deposits (B2) (**Riverine**)  
☐ Drift Deposits (B3) (**Riverine**)  
☐ Drainage Patterns (B10)  
☐ Dry-Season Water Table (C2)  
☐ Crayfish Burrows (C8)  
☐ Saturation Visible on Aerial Imagery (C9)  
☐ Shallow Aquitard (D3)  
☒ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present? Yes \_\_\_\_\_ No \_\_\_\_\_ Depth (inches): \_\_\_\_\_

Water Table Present? Yes \_\_\_\_\_ No \_\_\_\_\_ Depth (inches): \_\_\_\_\_

Saturation Present? Yes \_\_\_\_\_ No \_\_\_\_\_ Depth (inches): \_\_\_\_\_  
(includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Problematic dry season. Bottom of wetland has soil cracks. This fringe site does not.

# WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: WDC DGAC-09162016-5-OUT City/County: Davis County Sampling Date: 9/16/2016  
 Applicant/Owner: UDOT State: Utah Sampling Point: DGAC-09162016-5-OUT  
 Investigator(s): DG/AC Section, Township, Range: 26 4N 2W  
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): none Slope (%): 0%  
 Subregion (LRR): D Lat: 41.05225114 Long: -112.0291533 Datum: D WGS 1983  
 Soil Map Unit Name: Ford loam, 0 to 1 percent slopes NWI classification: PEM1C

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)  
 Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐  
 Are Vegetation ☐, Soil ☐, or Hydrology ☒ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Hydric Soil Present? Yes <input type="checkbox"/> No <input type="checkbox"/>	
Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Remarks: Upland vegetation. Didn't sample soils.	

## VEGETATION – Use scientific names of plants.

<b>Tree Stratum</b> (Plot size: _____) 1. _____ 2. _____ 3. _____ 4. _____ _____ = Total Cover <b>Sapling/Shrub Stratum</b> (Plot size: _____) 1. _____ 2. _____ 3. _____ 4. _____ 5. _____ _____ = Total Cover <b>Herb Stratum</b> (Plot size: <u>5 ft. radius</u> ) 1. <u>Thinopyrum intermedium</u> 50% Yes NL 2. <u>Polypogon monspeliensis</u> 40% Yes FACW 3. <u>Lepidium latifolium</u> 15% FAC 4. <u>Atriplex micrantha</u> 1% NL 5. <u>Ambrosia artemisifolia</u> 1% FACU 6. <u>Distichlis spicata</u> 10% FAC 7. _____ 8. _____ 117% = Total Cover <b>Woody Vine Stratum</b> (Plot size: _____) 1. _____ 2. _____ _____ = Total Cover % Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50%</u> (A/B) <b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species <u>40</u> x 2 = <u>80</u> FAC species <u>25</u> x 3 = <u>75</u> FACU species <u>1</u> x 4 = <u>4</u> UPL species <u>51</u> x 5 = <u>204</u> Column Totals: <u>117</u> (A) <u>363</u> (B) Prevalence Index = B/A = <u>3.1</u> <b>Hydrophytic Vegetation Indicators:</b> ___ Dominance Test is >50% ___ Prevalence Index is ≤3.0 <sup>1</sup> ___ Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. <b>Hydrophytic Vegetation Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Remarks: Vegetation fails dominance test.	

## SOIL

Sampling Point: DGAC-0916

[illegible]

## HYDROLOGY

Wetland Hydrology Indicators:		
Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (2 or more required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) ( <b>Riverine</b> )
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) ( <b>Riverine</b> )
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) ( <b>Riverine</b> )
<input type="checkbox"/> Water Marks (B1) ( <b>Nonriverine</b> )	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) ( <b>Nonriverine</b> )	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3) ( <b>Nonriverine</b> )	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present?    Yes <input type="checkbox"/> No <input type="checkbox"/> Depth (inches): _____ Water Table Present?    Yes <input type="checkbox"/> No <input type="checkbox"/> Depth (inches): _____ Saturation Present?    Yes <input type="checkbox"/> No <input type="checkbox"/> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:  Dry site. No indicators observed.		

# WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: WDC DGAC-09162016-2-OUT City/County: Davis County Sampling Date: 9/16/2016  
 Applicant/Owner: UDOT State: Utah Sampling Point: DGAC-09162016-2-OUT  
 Investigator(s): DG/AC Section, Township, Range: 26 4N 2W  
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): none Slope (%): 1%  
 Subregion (LRR): D Lat: 41.051401 Long: -112.0319197 Datum: D WGS 1983  
 Soil Map Unit Name: Ford loam, 0 to 1 percent slopes NWI classification: PEM1C

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)  
 Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐  
 Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Hydric Soil Present? Yes <input type="checkbox"/> No <input type="checkbox"/>	
Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Remarks: Upland vegetation. Didn't sample soils.	

## VEGETATION – Use scientific names of plants.

<b>Tree Stratum</b> (Plot size: _____) 1. _____ 2. _____ 3. _____ 4. _____ _____ = Total Cover <b>Sapling/Shrub Stratum</b> (Plot size: _____) 1. _____ 2. _____ 3. _____ 4. _____ 5. _____ _____ = Total Cover <b>Herb Stratum</b> (Plot size: <u>5 ft. radius</u> ) 1. <u>Thinopyrum intermedium</u> <u>79%</u> <u>Yes</u> <u>NL</u> 2. <u>Polypogon monspeliensis</u> <u>5%</u> <u></u> <u>FACW</u> 3. <u>Distichlis spicata</u> <u>5%</u> <u></u> <u>FAC</u> 4. <u>Lepidium latifolium</u> <u>1%</u> <u></u> <u>FAC</u> 5. _____ 6. _____ 7. _____ 8. _____ _____ = Total Cover <b>Woody Vine Stratum</b> (Plot size: _____) 1. _____ 2. _____ _____ = Total Cover % Bare Ground in Herb Stratum <u>10%</u> % Cover of Biotic Crust _____	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B) <b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species <u>5</u> x 2 = <u>10</u> FAC species <u>6</u> x 3 = <u>18</u> FACU species _____ x 4 = _____ UPL species <u>79</u> x 5 = <u>395</u> Column Totals: <u>90</u> (A) <u>423</u> (B) Prevalence Index = B/A = <u>4.7</u> <b>Hydrophytic Vegetation Indicators:</b> ___ Dominance Test is >50% ___ Prevalence Index is ≤3.0 <sup>1</sup> ___ Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. <b>Hydrophytic Vegetation Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Remarks: Vegetation is not hydrophytic.	

## SOIL

Sampling Point: DGAC-0916

[illegible]

## HYDROLOGY

Wetland Hydrology Indicators:		
Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (2 or more required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) ( <b>Riverine</b> )
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) ( <b>Riverine</b> )
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) ( <b>Riverine</b> )
<input type="checkbox"/> Water Marks (B1) ( <b>Nonriverine</b> )	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) ( <b>Nonriverine</b> )	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3) ( <b>Nonriverine</b> )	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present?    Yes <input type="checkbox"/> No <input type="checkbox"/> Depth (inches): _____ Water Table Present?    Yes <input type="checkbox"/> No <input type="checkbox"/> Depth (inches): _____ Saturation Present?    Yes <input type="checkbox"/> No <input type="checkbox"/> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		
Dry site. No indicators observed.		



# WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: WDC MP-09192016-1-IN City/County: Davis County Sampling Date: 9/19/2016  
 Applicant/Owner: UDOT State: Utah Sampling Point: MP-09192016  
 Investigator(s): MP Section, Township, Range: 26 4N 2W  
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): none Slope (%): 0%  
 Subregion (LRR): D Lat: 41.04574058 Long: -112.028631 Datum: D WGS 1983  
 Soil Map Unit Name: Ford loam, 0 to 1 percent slopes NWI classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____	
Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	
Remarks: Relatively large wet meadow wetland with mix of vegetation. Hydrology assumed earlier in growing season.	

## VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A)  Total Number of Dominant Species Across All Strata: <u>3</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
_____ = Total Cover				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B)  Prevalence Index = B/A = _____
<b>Sapling/Shrub Stratum</b> (Plot size: _____)				
1. <u>Juncus arcticus</u>	<u>40%</u>	<u>Yes</u>	<u>FACW</u>	
2. <u>Lepidium latifolium</u>	<u>35%</u>	<u>Yes</u>	<u>FAC</u>	
3. <u>Distichlis spicata</u>	<u>30%</u>	<u>Yes</u>	<u>FAC</u>	
4. _____	_____	_____	_____	<b>Hydrophytic Vegetation Indicators:</b> ___ Dominance Test is >50% ___ Prevalence Index is ≤3.0 <sup>1</sup> ___ Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
5. _____	_____	_____	_____	
_____ = Total Cover				
<b>Herb Stratum</b> (Plot size: _____)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No _____
8. _____	_____	_____	_____	
_____ = Total Cover				
<b>Woody Vine Stratum</b> (Plot size: _____)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
_____ = Total Cover				
% Bare Ground in Herb Stratum <u>5%</u> % Cover of Biotic Crust _____				

Remarks:

Additional species outside of plot include teasel, rabbit's foot grass, 3-square, and small patches of Phragmites.

# SOIL

Sampling Point: MP-091924

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-4	10YR 4/3	100%					SiLoam	
4-14	10YR 4/2	95%	10YR 6/4	5%	C	M	SiLoam	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) (**LRR C**)
- ☐ 1 cm Muck (A9) (**LRR D**)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)

- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☒ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- ☐ 1 cm Muck (A9) (**LRR C**)
- ☐ 2 cm Muck (A10) (**LRR B**)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes ☒ No ☐

Remarks:

# HYDROLOGY

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1) (**Nonriverine**)
- ☐ Sediment Deposits (B2) (**Nonriverine**)
- ☐ Drift Deposits (B3) (**Nonriverine**)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)

- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) (**Riverine**)
- ☐ Sediment Deposits (B2) (**Riverine**)
- ☐ Drift Deposits (B3) (**Riverine**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☒ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present? Yes ☐ No ☒ Depth (inches): \_\_\_\_\_

Water Table Present? Yes ☐ No ☒ Depth (inches): \_\_\_\_\_

Saturation Present? Yes ☐ No ☒ Depth (inches): \_\_\_\_\_  
(includes capillary fringe)

**Wetland Hydrology Present?** Yes ☐ No ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Dry time of year for seasonal wetland.

# WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: WDC MP-09192016-1-OUT City/County: Davis County Sampling Date: 9/19/2016  
 Applicant/Owner: UDOT State: Utah Sampling Point: MP-09192016  
 Investigator(s): MP Section, Township, Range: 26 4N 2W  
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): none Slope (%): 0%  
 Subregion (LRR): D Lat: 41.04577297 Long: -112.0287155 Datum: D WGS 1983  
 Soil Map Unit Name: Warm Springs fine sandy loam, saline, sodic, 0 to 1 percent slopes NWI classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Hydric Soil Present? Yes _____ No _____	
Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	
Remarks:  Upland area above wetland. Didn't sample soil.	

## VEGETATION – Use scientific names of plants.

<b>Tree Stratum</b> (Plot size: _____) 1. _____ 2. _____ 3. _____ 4. _____ _____ = Total Cover <b>Sapling/Shrub Stratum</b> (Plot size: _____) 1. _____ 2. _____ 3. _____ 4. _____ 5. _____ _____ = Total Cover <b>Herb Stratum</b> (Plot size: <u>5 ft. radius</u> ) 1. <u>Thinopyrum intermedium</u> <u>80%</u> <u>Yes</u> <u>NL</u> 2. <u>Juncus arcticus</u> <u>5%</u> <u></u> <u>FACW</u> 3. _____ 4. _____ 5. _____ 6. _____ 7. _____ 8. _____ _____ = Total Cover <b>Woody Vine Stratum</b> (Plot size: _____) 1. _____ 2. _____ _____ = Total Cover % Bare Ground in Herb Stratum <u>15%</u> % Cover of Biotic Crust _____	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B) <b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species <u>5</u> x 2 = <u>10</u> FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species <u>80</u> x 5 = <u>400</u> Column Totals: <u>85</u> (A) <u>410</u> (B) Prevalence Index = B/A = <u>4.8</u> <b>Hydrophytic Vegetation Indicators:</b> ___ Dominance Test is >50% ___ Prevalence Index is ≤3.0 <sup>1</sup> ___ Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. <b>Hydrophytic Vegetation Present?</b> Yes _____ No <input checked="" type="checkbox"/>
Remarks:	

## SOIL

Sampling Point: MP-09192

[illegible]

## HYDROLOGY

Wetland Hydrology Indicators:		
Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (2 or more required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) ( <b>Riverine</b> )
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) ( <b>Riverine</b> )
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) ( <b>Riverine</b> )
<input type="checkbox"/> Water Marks (B1) ( <b>Nonriverine</b> )	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) ( <b>Nonriverine</b> )	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3) ( <b>Nonriverine</b> )	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present?    Yes <input type="checkbox"/> No <input type="checkbox"/> Depth (inches): _____ Water Table Present?    Yes <input type="checkbox"/> No <input type="checkbox"/> Depth (inches): _____ Saturation Present?    Yes <input type="checkbox"/> No <input type="checkbox"/> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		
Dry site. No indicators observed.		

# WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: WDC MP-09202016-1-IN City/County: Davis County Sampling Date: 9/20/2016  
 Applicant/Owner: UDOT State: Utah Sampling Point: MP-09202016  
 Investigator(s): MP Section, Township, Range: 26 4N 2W  
 Landform (hillslope, terrace, etc.): terrace/depression Local relief (concave, convex, none): concave Slope (%): 1%  
 Subregion (LRR): D Lat: 41.04683957 Long: -112.0267673 Datum: D WGS 1983  
 Soil Map Unit Name: Arave-Saltair complex, 0 to 1 percent slopes NWI classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology ☒ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____	
Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	
Remarks:  Wet meadow with fenced area for radio towers. Problematic hydrology. Dry time of year for seasonal wetland.	

## VEGETATION – Use scientific names of plants.

<b>Tree Stratum</b> (Plot size: _____) 1. _____ 2. _____ 3. _____ 4. _____ _____ = Total Cover <b>Sapling/Shrub Stratum</b> (Plot size: _____) 1. _____ 2. _____ 3. _____ 4. _____ 5. _____ _____ = Total Cover <b>Herb Stratum</b> (Plot size: <u>5 ft. radius</u> ) 1. <u>Juncus arcticus</u> <u>90%</u> <u>Yes</u> <u>FACW</u> 2. <u>Distichlis spicata</u> <u>10%</u> <u></u> <u>FAC</u> 3. <u>Atriplex micrantha</u> <u>10%</u> <u></u> <u>NL</u> 4. _____ 5. _____ 6. _____ 7. _____ 8. _____ _____ = Total Cover <b>Woody Vine Stratum</b> (Plot size: _____) 1. _____ 2. _____ _____ = Total Cover % Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B) <b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____ <b>Hydrophytic Vegetation Indicators:</b> <input checked="" type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. <b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No _____
Remarks:  Beyond sampling plot, wetland also includes small patches of Phragmites.	



## SOIL

Sampling Point: MP-092024

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-6	10YR 4/3	100%					SiClLoam	
4-14	10YR 5/2	95%	10YR 5/4	5%	C	M	SiClLoam	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) (**LRR C**)
- ☐ 1 cm Muck (A9) (**LRR D**)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)

- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☒ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- ☐ 1 cm Muck (A9) (**LRR C**)
- ☐ 2 cm Muck (A10) (**LRR B**)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes ☒ No ☐

Remarks:

## HYDROLOGY

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1) (**Nonriverine**)
- ☐ Sediment Deposits (B2) (**Nonriverine**)
- ☐ Drift Deposits (B3) (**Nonriverine**)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)

- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) (**Riverine**)
- ☐ Sediment Deposits (B2) (**Riverine**)
- ☐ Drift Deposits (B3) (**Riverine**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☒ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present? Yes ☐ No ☐ Depth (inches): \_\_\_\_\_

Water Table Present? Yes ☐ No ☐ Depth (inches): \_\_\_\_\_

Saturation Present? Yes ☐ No ☐ Depth (inches): \_\_\_\_\_  
(includes capillary fringe)

**Wetland Hydrology Present?** Yes ☐ No ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Dry time of year for seasonal wetland.

# WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: WDC MP-09202016-1-OUT City/County: Davis County Sampling Date: 9/20/2016  
 Applicant/Owner: UDOT State: Utah Sampling Point: MP-09202016  
 Investigator(s): MP Section, Township, Range: 26 4N 2W  
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): none Slope (%): 0%  
 Subregion (LRR): D Lat: 41.04688173 Long: -112.026768 Datum: D WGS 1983  
 Soil Map Unit Name: Arave-Saltair complex, 0 to 1 percent slopes NWI classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Hydric Soil Present? Yes _____ No _____	
Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	
Remarks: Upland vegetation. Didn't sample soil.	

## VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)  Total Number of Dominant Species Across All Strata: <u>1</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
_____ = Total Cover				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species <u>95</u> x 5 = <u>475</u> Column Totals: <u>95</u> (A) <u>475</u> (B)  Prevalence Index = B/A = <u>5</u>
<b>Sapling/Shrub Stratum (Plot size: _____)</b> 1. _____ 2. _____ 3. _____ 4. _____ 5. _____ _____ = Total Cover				
<b>Herb Stratum (Plot size: <u>5 ft. radius</u>)</b> 1. <u>Thinopyrum intermedium</u> <u>90%</u> <u>Yes</u> <u>NL</u> 2. <u>Atriplex micrantha</u> <u>5%</u> _____ <u>NL</u> 3. _____ 4. _____ 5. _____ 6. _____ 7. _____ 8. _____ _____ = Total Cover				
<b>Woody Vine Stratum (Plot size: _____)</b> 1. _____ 2. _____ _____ = Total Cover				
% Bare Ground in Herb Stratum <u>10%</u> % Cover of Biotic Crust _____				
Remarks:				<b>Hydrophytic Vegetation Indicators:</b> ___ Dominance Test is >50% ___ Prevalence Index is ≤3.0 <sup>1</sup> ___ Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
<b>Hydrophytic Vegetation Present?</b> Yes _____ No <input checked="" type="checkbox"/>				

## SOIL

Sampling Point: MP-09202

[illegible]

## HYDROLOGY

Wetland Hydrology Indicators:		
Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (2 or more required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) ( <b>Riverine</b> )
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) ( <b>Riverine</b> )
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) ( <b>Riverine</b> )
<input type="checkbox"/> Water Marks (B1) ( <b>Nonriverine</b> )	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) ( <b>Nonriverine</b> )	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3) ( <b>Nonriverine</b> )	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <input type="checkbox"/> No <input type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input type="checkbox"/> No <input type="checkbox"/> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		
Dry site. No indicators observed.		

# WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: WDC DGAC-09122016-1-OUT City/County: Davis County Sampling Date: 9/12/2016  
 Applicant/Owner: UDOT State: Utah Sampling Point: DGAC-09122016-1-OUT  
 Investigator(s): DG/AC Section, Township, Range: 27 4N 2W  
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): none Slope (%): 0%  
 Subregion (LRR): D Lat: 41.05370217 Long: -112.0537359 Datum: D WGS 1983  
 Soil Map Unit Name: Cudahy silt loam, 0 to 1 percent slopes NWI classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Hydric Soil Present? Yes _____ No _____	
Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	
Remarks:  Area not a wetland.	

## VEGETATION – Use scientific names of plants.

<b>Tree Stratum</b> (Plot size: _____) 1. _____ 2. _____ 3. _____ 4. _____ _____ = Total Cover <b>Sapling/Shrub Stratum</b> (Plot size: _____) 1. _____ 2. _____ 3. _____ 4. _____ 5. _____ _____ = Total Cover <b>Herb Stratum</b> (Plot size: <u>5 ft. radius</u> ) 1. <u>Distichlis spicata</u> <u>70%</u> <u>Yes</u> <u>FAC</u> 2. <u>Bromus racemosus</u> <u>28%</u> <u>Yes</u> <u>NL</u> 3. <u>Bromus inermis</u> <u>2%</u> <u></u> <u>FACU</u> 4. _____ 5. _____ 6. _____ 7. _____ 8. _____ _____ = Total Cover <b>Woody Vine Stratum</b> (Plot size: _____) 1. _____ 2. _____ _____ = Total Cover % Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50%</u> (A/B) <b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species <u>70</u> x 3 = <u>210</u> FACU species <u>2</u> x 4 = <u>8</u> UPL species <u>28</u> x 5 = <u>140</u> Column Totals: <u>100</u> (A) <u>358</u> (B) Prevalence Index = B/A = <u>3.58</u> <b>Hydrophytic Vegetation Indicators:</b> ___ Dominance Test is >50% ___ Prevalence Index is ≤3.0 <sup>1</sup> ___ Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. <b>Hydrophytic Vegetation Present?</b> Yes _____ No <input checked="" type="checkbox"/>
Remarks:  Vegetation fails dominance test.	

## SOIL

Sampling Point: DGAC-091

[illegible]

## HYDROLOGY

Wetland Hydrology Indicators:		
Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (2 or more required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) ( <b>Riverine</b> )
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) ( <b>Riverine</b> )
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) ( <b>Riverine</b> )
<input type="checkbox"/> Water Marks (B1) ( <b>Nonriverine</b> )	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) ( <b>Nonriverine</b> )	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3) ( <b>Nonriverine</b> )	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present?    Yes <input type="checkbox"/> No <input type="checkbox"/> Depth (inches): _____ Water Table Present?    Yes <input type="checkbox"/> No <input type="checkbox"/> Depth (inches): _____ Saturation Present?    Yes <input type="checkbox"/> No <input type="checkbox"/> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		
Dry site. No indicators observed.		



# WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: WDC DGAC-09122016-2-IN City/County: Davis County Sampling Date: 9/12/2016  
 Applicant/Owner: UDOT State: Utah Sampling Point: DGAC-09122016-2-IN  
 Investigator(s): DG/AC Section, Township, Range: 27 4N 2W  
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): none Slope (%): 0%  
 Subregion (LRR): D Lat: 41.05428681 Long: -112.05336 Datum: D WGS 1983  
 Soil Map Unit Name: Warm Springs fine sandy loam, shallow water table, 0 to 1 percent slope NWI classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology ☒ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____	
Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	
Remarks: Problematic hydrology for the season.	

## VEGETATION – Use scientific names of plants.

<b>Tree Stratum</b> (Plot size: _____) 1. _____ 2. _____ 3. _____ 4. _____ _____ = Total Cover <b>Sapling/Shrub Stratum</b> (Plot size: _____) 1. _____ 2. _____ 3. _____ 4. _____ 5. _____ _____ = Total Cover <b>Herb Stratum</b> (Plot size: <u>5 ft. radius</u> ) 1. <u>Carex praeegracilis</u> 60% Yes FACW 2. <u>Juncus arcticus</u> 30% Yes FACW 3. <u>Atriplex micrantha</u> 2% NL 4. <u>Cardaria draba</u> 1% NL 5. <u>Distichlis spicata</u> 10% FAC 6. <u>Poa pratensis</u> 5% FAC 7. _____ 8. _____ 108% = Total Cover <b>Woody Vine Stratum</b> (Plot size: _____) 1. _____ 2. _____ _____ = Total Cover % Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B) <b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____ <b>Hydrophytic Vegetation Indicators:</b> <input checked="" type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. <b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No _____
Remarks: Vegetation passes dominance test.	

## SOIL

Sampling Point: DGAC-091

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-2.5	10YR 2/2	100%					Loam	
2.5-5	10YR 3/1	100%					LoSand	
5-13	10YR 3/2	89%	10YR 2/1	5%	C	M	LoSand	
			10YR 8/1	3%	D	M		
			10YR 4/6	3%	C	M		

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                           | <input type="checkbox"/> Sandy Redox (S5)                   |
| <input type="checkbox"/> Histic Epipedon (A2)                    | <input type="checkbox"/> Stripped Matrix (S6)               |
| <input type="checkbox"/> Black Histic (A3)                       | <input type="checkbox"/> Loamy Mucky Mineral (F1)           |
| <input type="checkbox"/> Hydrogen Sulfide (A4)                   | <input type="checkbox"/> Loamy Gleyed Matrix (F2)           |
| <input type="checkbox"/> Stratified Layers (A5) ( <b>LRR C</b> ) | <input type="checkbox"/> Depleted Matrix (F3)               |
| <input type="checkbox"/> 1 cm Muck (A9) ( <b>LRR D</b> )         | <input checked="" type="checkbox"/> Redox Dark Surface (F6) |
| <input type="checkbox"/> Depleted Below Dark Surface (A11)       | <input type="checkbox"/> Depleted Dark Surface (F7)         |
| <input type="checkbox"/> Thick Dark Surface (A12)                | <input type="checkbox"/> Redox Depressions (F8)             |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)                | <input type="checkbox"/> Vernal Pools (F9)                  |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)                |   |

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- ☐ 1 cm Muck (A9) (**LRR C**)
- ☐ 2 cm Muck (A10) (**LRR B**)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes ☒ No ☐

Remarks:

Soil profile fits Redox Dark Surface (F6) indicator.

## HYDROLOGY

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                            | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                         | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                               | <input type="checkbox"/> Aquatic Invertebrates (B13)                   |
| <input type="checkbox"/> Water Marks (B1) ( <b>Nonriverine</b> )       | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) ( <b>Nonriverine</b> ) | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) ( <b>Nonriverine</b> )    | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                      | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)     | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                     | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) (**Riverine**)
- ☐ Sediment Deposits (B2) (**Riverine**)
- ☐ Drift Deposits (B3) (**Riverine**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☒ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present? Yes ☐ No ☒ Depth (inches): \_\_\_\_\_

Water Table Present? Yes ☐ No ☒ Depth (inches): \_\_\_\_\_

Saturation Present? Yes ☐ No ☒ Depth (inches): \_\_\_\_\_  
(includes capillary fringe)

**Wetland Hydrology Present?** Yes ☐ No ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Dry time of year for seasonal wetland.



## SOIL

Sampling Point: DGAC-091

[illegible]

## HYDROLOGY

Wetland Hydrology Indicators:		
Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (2 or more required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) ( <b>Riverine</b> )
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) ( <b>Riverine</b> )
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) ( <b>Riverine</b> )
<input type="checkbox"/> Water Marks (B1) ( <b>Nonriverine</b> )	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) ( <b>Nonriverine</b> )	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3) ( <b>Nonriverine</b> )	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <input type="checkbox"/> No <input type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input type="checkbox"/> No <input type="checkbox"/> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		
Dry site. No indicators observed.		

# WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: WDC DGAC-09122016-3-IN City/County: Davis County Sampling Date: 9/12/2016  
 Applicant/Owner: UDOT State: Utah Sampling Point: DGAC-09122016-3-IN  
 Investigator(s): DG/AC Section, Township, Range: 27 4N 2W  
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): none Slope (%): 0%  
 Subregion (LRR): D Lat: 41.05426133 Long: -112.0543369 Datum: D WGS 1983  
 Soil Map Unit Name: Warm Springs fine sandy loam, shallow water table, 0 to 1 percent slope NWI classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil ☒, or Hydrology ☒ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____	
Wetland Hydrology Present? Yes _____ No _____	
Remarks: Saline wet meadow with problematic soils and hydrology. Wetland hydrology assumed earlier in growing season.	

## VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)  Total Number of Dominant Species Across All Strata: <u>1</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
_____ = Total Cover				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B)  Prevalence Index = B/A = _____
<b>Sapling/Shrub Stratum</b> (Plot size: _____)				
1. <u>Distichlis spicata</u>	<u>50%</u>	<u>Yes</u>	<u>FAC</u>	
2. <u>Suaeda occidentalis</u>	<u>10%</u>		<u>FACW</u>	
3. <u>Hordeum jubatum</u>	<u>2%</u>		<u>FAC</u>	
4. <u>Atriplex micrantha</u>	<u>1%</u>		<u>NL</u>	
5. <u>Puccinellia nuttalliana</u>	<u>1%</u>		<u>FACW</u>	
_____ = Total Cover				<b>Hydrophytic Vegetation Indicators:</b> <input checked="" type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
<b>Herb Stratum</b> (Plot size: _____)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
_____ = Total Cover				<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
<b>Woody Vine Stratum</b> (Plot size: _____)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
_____ = Total Cover				<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No _____
% Bare Ground in Herb Stratum <u>36%</u>	% Cover of Biotic Crust _____			

Remarks:

Vegetation passes dominance test.



## SOIL

Sampling Point: DGAC-091

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-2	10YR 4/2	100%						cemented/loamy
2-7	10YR 5/3	50%						cemented/loamy
	10YR 4/1	50%						
7-13	7.5YR 4/2	100%					SaLoam	
13-14.5	7.5YR 4/3	100%					SaLoam	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                           | <input type="checkbox"/> Sandy Redox (S5)           |
| <input type="checkbox"/> Histic Epipedon (A2)                    | <input type="checkbox"/> Stripped Matrix (S6)       |
| <input type="checkbox"/> Black Histic (A3)                       | <input type="checkbox"/> Loamy Mucky Mineral (F1)   |
| <input type="checkbox"/> Hydrogen Sulfide (A4)                   | <input type="checkbox"/> Loamy Gleyed Matrix (F2)   |
| <input type="checkbox"/> Stratified Layers (A5) ( <b>LRR C</b> ) | <input type="checkbox"/> Depleted Matrix (F3)       |
| <input type="checkbox"/> 1 cm Muck (A9) ( <b>LRR D</b> )         | <input type="checkbox"/> Redox Dark Surface (F6)    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11)       | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12)                | <input type="checkbox"/> Redox Depressions (F8)     |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)                | <input type="checkbox"/> Vernal Pools (F9)          |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)                |   |

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- ☐ 1 cm Muck (A9) (**LRR C**)
- ☐ 2 cm Muck (A10) (**LRR B**)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No ☒

Remarks:

Appears somewhat depleted, but may be masked by high pH. In consideration of vegetation, landscape position, and alkalinity, hydric soils assumed.

## HYDROLOGY

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                            | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                         | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                               | <input type="checkbox"/> Aquatic Invertebrates (B13)                   |
| <input type="checkbox"/> Water Marks (B1) ( <b>Nonriverine</b> )       | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) ( <b>Nonriverine</b> ) | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) ( <b>Nonriverine</b> )    | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                      | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)     | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                     | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) (**Riverine**)
- ☐ Sediment Deposits (B2) (**Riverine**)
- ☐ Drift Deposits (B3) (**Riverine**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present? Yes \_\_\_\_\_ No \_\_\_\_\_ Depth (inches): \_\_\_\_\_

Water Table Present? Yes \_\_\_\_\_ No \_\_\_\_\_ Depth (inches): \_\_\_\_\_

Saturation Present? Yes \_\_\_\_\_ No \_\_\_\_\_ Depth (inches): \_\_\_\_\_  
(includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Problematic season.

# WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: WDC DGAC-09122016-3-OUT City/County: Davis County Sampling Date: 9/12/2016  
 Applicant/Owner: UDOT State: Utah Sampling Point: DGAC-09122016-3-OUT  
 Investigator(s): DG/AC Section, Township, Range: 27 4N 2W  
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): none Slope (%): 0%  
 Subregion (LRR): D Lat: 41.05421104 Long: -112.054218 Datum: D WGS 1983  
 Soil Map Unit Name: Warm Springs fine sandy loam, shallow water table, 0 to 1 percent slope NWI classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Hydric Soil Present? Yes _____ No _____	
Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	
Remarks:  Upland area.	

## VEGETATION – Use scientific names of plants.

<b>Tree Stratum</b> (Plot size: _____) 1. _____ 2. _____ 3. _____ 4. _____ _____ = Total Cover <b>Sapling/Shrub Stratum</b> (Plot size: _____) 1. _____ 2. _____ 3. _____ 4. _____ 5. _____ _____ = Total Cover <b>Herb Stratum</b> (Plot size: <u>5 ft. radius</u> ) 1. <u>Thinopyrum intermedium</u> <u>80%</u> <u>Yes</u> <u>NL</u> 2. <u>Distichlis spicata</u> <u>9%</u> <u></u> <u>FAC</u> 3. <u>Bromus racemosus</u> <u>1%</u> <u></u> <u>NL</u> 4. _____ 5. _____ 6. _____ 7. _____ 8. _____ _____ <u>90%</u> = Total Cover <b>Woody Vine Stratum</b> (Plot size: _____) 1. _____ 2. _____ _____ = Total Cover % Bare Ground in Herb Stratum <u>10%</u> % Cover of Biotic Crust _____	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>0</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B) <b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species <u>9</u> x 3 = <u>27</u> FACU species _____ x 4 = _____ UPL species <u>81</u> x 5 = <u>405</u> Column Totals: <u>90</u> (A) <u>432</u> (B) Prevalence Index = B/A = <u>4.8</u> <b>Hydrophytic Vegetation Indicators:</b> ___ Dominance Test is >50% ___ Prevalence Index is ≤3.0 <sup>1</sup> ___ Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. <b>Hydrophytic Vegetation Present?</b> Yes _____ No <input checked="" type="checkbox"/>
Remarks:  Vegetation is not hydrophytic.	

## SOIL

Sampling Point: DGAC-091

[illegible]

## HYDROLOGY

Wetland Hydrology Indicators:		
Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (2 or more required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) ( <b>Riverine</b> )
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) ( <b>Riverine</b> )
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) ( <b>Riverine</b> )
<input type="checkbox"/> Water Marks (B1) ( <b>Nonriverine</b> )	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) ( <b>Nonriverine</b> )	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3) ( <b>Nonriverine</b> )	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present?    Yes <input type="checkbox"/> No <input type="checkbox"/> Depth (inches): _____ Water Table Present?    Yes <input type="checkbox"/> No <input type="checkbox"/> Depth (inches): _____ Saturation Present?    Yes <input type="checkbox"/> No <input type="checkbox"/> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		
Dry site. No indicators observed.		

# WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: WDC DGAC-09132016-3-IN City/County: Davis County Sampling Date: 9/13/2016  
 Applicant/Owner: UDOT State: Utah Sampling Point: DGAC-09132016-3-IN  
 Investigator(s): DG/AC Section, Township, Range: 27 4N 2W  
 Landform (hillslope, terrace, etc.): terrace/depression Local relief (concave, convex, none): concave Slope (%): 1%  
 Subregion (LRR): D Lat: 41.05385133 Long: -112.0463499 Datum: D WGS 1983  
 Soil Map Unit Name: Arave-Saltair complex, 0 to 1 percent slopes NWI classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____	
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	
Remarks:  Sampled area is a wetland.	

## VEGETATION – Use scientific names of plants.

<b>Tree Stratum</b> (Plot size: _____) 1. _____ 2. _____ 3. _____ 4. _____ _____ = Total Cover <b>Sapling/Shrub Stratum</b> (Plot size: _____) 1. _____ 2. _____ 3. _____ 4. _____ 5. _____ _____ = Total Cover <b>Herb Stratum</b> (Plot size: <u>5 ft radius</u> ) 1. <u>Trifolium fragiferum</u> 5% FAC 2. <u>Schedonorus pratensis</u> 5% FACU 3. <u>Distichlis spicata</u> 60% Yes FAC 4. <u>Carex praegracilis</u> 30% FACW 5. _____ 6. _____ 7. _____ 8. _____ _____ = Total Cover <b>Woody Vine Stratum</b> (Plot size: _____) 1. _____ 2. _____ _____ = Total Cover % Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B) <b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____ <b>Hydrophytic Vegetation Indicators:</b> <input checked="" type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. <b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No _____
Remarks:  Dry vegetation.	

# SOIL

Sampling Point: DGAC-091

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-3	10YR 2/2	100%						many roots
3-7	10YR 3/2	95%	10YR 4/6	5%	C	M/PL		
7-12	10YR 3/3	88%	10YR 4/6	2%	C	M		
	10YR 3/1	10%						

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) (**LRR C**)
- ☐ 1 cm Muck (A9) (**LRR D**)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)

- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☒ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- ☐ 1 cm Muck (A9) (**LRR C**)
- ☐ 2 cm Muck (A10) (**LRR B**)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present? Yes ☒ No ☐**

Remarks:

Very dry soil.

# HYDROLOGY

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1) (**Nonriverine**)
- ☐ Sediment Deposits (B2) (**Nonriverine**)
- ☐ Drift Deposits (B3) (**Nonriverine**)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)

- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☒ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) (**Riverine**)
- ☐ Sediment Deposits (B2) (**Riverine**)
- ☐ Drift Deposits (B3) (**Riverine**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☒ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present? Yes ☐ No ☐ Depth (inches): \_\_\_\_\_

Water Table Present? Yes ☐ No ☐ Depth (inches): \_\_\_\_\_

Saturation Present? Yes ☐ No ☐ Depth (inches): \_\_\_\_\_  
(includes capillary fringe)

**Wetland Hydrology Present? Yes ☒ No ☐**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Hydrology indicator (C3) observed.



# WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: WDC DGAC-09132016-3-OUT City/County: Davis County Sampling Date: 9/13/2016  
 Applicant/Owner: UDOT State: Utah Sampling Point: DGAC-09132016-3-OUT  
 Investigator(s): DG/AC Section, Township, Range: 27 4N 2W  
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): none Slope (%): 0%  
 Subregion (LRR): D Lat: 41.05388639 Long: -112.0463092 Datum: D WGS 1983  
 Soil Map Unit Name: Arave-Saltair complex, 0 to 1 percent slopes NWI classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/>	
Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	
Remarks:  Sampled area is not a wetland.	

## VEGETATION – Use scientific names of plants.

<b>Tree Stratum</b> (Plot size: _____) 1. _____ 2. _____ 3. _____ 4. _____ _____ = Total Cover <b>Sapling/Shrub Stratum</b> (Plot size: _____) 1. _____ 2. _____ 3. _____ 4. _____ 5. _____ _____ = Total Cover <b>Herb Stratum</b> (Plot size: <u>5 ft. radius</u> ) 1. <u>Distichlis spicata</u> 40% Yes FAC 2. <u>Carex praegracilis</u> 40% Yes FACW 3. <u>Suaeda occidentalis</u> 1% FACW 4. <u>Lactuca serriola</u> 5% FACU 5. <u>Thinopyrum intermedium</u> 20% NL 6. <u>Panicum capillare</u> 1% FACU 7. _____ 8. _____ 107% = Total Cover <b>Woody Vine Stratum</b> (Plot size: _____) 1. _____ 2. _____ _____ = Total Cover % Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B) <b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____ <b>Hydrophytic Vegetation Indicators:</b> <input checked="" type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. <b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No _____
Remarks:  Dry area includes intermediate wheat grass.	

# SOIL

Sampling Point: DGAC-091

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-2	10YR 3/3	100%						many roots
2-7.5	10YR 4/2	99%					Loam	
	10YR 3/1	1%						
7.5-15	7.5YR 4/3	100%					ClLoam	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) (**LRR C**)
- ☐ 1 cm Muck (A9) (**LRR D**)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)

- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- ☐ 1 cm Muck (A9) (**LRR C**)
- ☐ 2 cm Muck (A10) (**LRR B**)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No ☒

Remarks:

No hydric indicators observed in soil profile.

# HYDROLOGY

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1) (**Nonriverine**)
- ☐ Sediment Deposits (B2) (**Nonriverine**)
- ☐ Drift Deposits (B3) (**Nonriverine**)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)

- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) (**Riverine**)
- ☐ Sediment Deposits (B2) (**Riverine**)
- ☐ Drift Deposits (B3) (**Riverine**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☒ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present? Yes \_\_\_\_\_ No \_\_\_\_\_ Depth (inches): \_\_\_\_\_

Water Table Present? Yes \_\_\_\_\_ No \_\_\_\_\_ Depth (inches): \_\_\_\_\_

Saturation Present? Yes \_\_\_\_\_ No \_\_\_\_\_ Depth (inches): \_\_\_\_\_  
(includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Dry site.

# WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: WDC DGAC-09142016-1-IN City/County: Davis County Sampling Date: 9/14/2016  
 Applicant/Owner: UDOT State: Utah Sampling Point: DGAC-09142016-1  
 Investigator(s): DG/AC Section, Township, Range: 26 4N 2W  
 Landform (hillslope, terrace, etc.): terrace/depression Local relief (concave, convex, none): concave Slope (%): 1%  
 Subregion (LRR): D Lat: 41.05317533 Long: -112.0451362 Datum: D WGS 1983  
 Soil Map Unit Name: Lakeshore fine sandy loam, 0 to 1 percent slopes NWI classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____	
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	
Remarks:  Sampled area is a wetland.	

## VEGETATION – Use scientific names of plants.

<b>Tree Stratum</b> (Plot size: _____) 1. _____ 2. _____ 3. _____ 4. _____ _____ = Total Cover <b>Sapling/Shrub Stratum</b> (Plot size: _____) 1. _____ 2. _____ 3. _____ 4. _____ 5. _____ _____ = Total Cover <b>Herb Stratum</b> (Plot size: <u>5 ft. radius</u> ) 1. <u>Distichlis spicata</u> 30% Yes FAC 2. <u>Agrostis exarata</u> 30% Yes FACW 3. <u>Carex nebrascensis</u> 30% Yes OBL 4. <u>Eleocharis palustris</u> 50% Yes OBL 5. <u>Schoenoplectus pungens</u> 5% OBL 6. <u>Juncus arcticus</u> 5% FACW 7. _____ 8. _____ 150% = Total Cover <b>Woody Vine Stratum</b> (Plot size: _____) 1. _____ 2. _____ _____ = Total Cover % Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>4</u> (A) Total Number of Dominant Species Across All Strata: <u>4</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B) <b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____ <b>Hydrophytic Vegetation Indicators:</b> <input checked="" type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. <b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No _____
Remarks:  Wet meadow at the bottom of a horse pasture.	

## SOIL

Sampling Point: DGAC-091

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-3	10YR 2/2	100%					organic	
3-7	10YR 3/1	85%	10YR 6/1	10%	D	M	SiLoam	
			10YR 6/6	5%	C	M		surrounding 6/1 depletions
7-12	10YR 3/1	60%	10YR 6/3	35%	D	M	SiLoam	
			10YR 2/1	5%	C	M		
12-16	10YR 3/1	40%	10YR 7/2	60%	D	M	SiClLoam	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

- |  |  |
|--|--|
| <input type="checkbox"/> Histosol (A1)                           | <input type="checkbox"/> Sandy Redox (S5)                      |
| <input type="checkbox"/> Histic Epipedon (A2)                    | <input type="checkbox"/> Stripped Matrix (S6)                  |
| <input type="checkbox"/> Black Histic (A3)                       | <input type="checkbox"/> Loamy Mucky Mineral (F1)              |
| <input type="checkbox"/> Hydrogen Sulfide (A4)                   | <input type="checkbox"/> Loamy Gleyed Matrix (F2)              |
| <input type="checkbox"/> Stratified Layers (A5) ( <b>LRR C</b> ) | <input type="checkbox"/> Depleted Matrix (F3)                  |
| <input type="checkbox"/> 1 cm Muck (A9) ( <b>LRR D</b> )         | <input checked="" type="checkbox"/> Redox Dark Surface (F6)    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11)       | <input checked="" type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12)                | <input type="checkbox"/> Redox Depressions (F8)                |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)                | <input type="checkbox"/> Vernal Pools (F9)                     |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)                |  |

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- ☐ 1 cm Muck (A9) (**LRR C**)
- ☐ 2 cm Muck (A10) (**LRR B**)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes ☒ No ☐

Remarks:

Soil profile fits F6 and F7 indicators.

## HYDROLOGY

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                            | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                         | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                               | <input type="checkbox"/> Aquatic Invertebrates (B13)                   |
| <input type="checkbox"/> Water Marks (B1) ( <b>Nonriverine</b> )       | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) ( <b>Nonriverine</b> ) | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) ( <b>Nonriverine</b> )    | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                      | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)     | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input checked="" type="checkbox"/> Water-Stained Leaves (B9)          | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) (**Riverine**)
- ☐ Sediment Deposits (B2) (**Riverine**)
- ☐ Drift Deposits (B3) (**Riverine**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☒ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present? Yes ☐ No ☒ Depth (inches): \_\_\_\_\_

Water Table Present? Yes ☐ No ☒ Depth (inches): \_\_\_\_\_

Saturation Present? Yes ☐ No ☒ Depth (inches): \_\_\_\_\_  
(includes capillary fringe)

**Wetland Hydrology Present?** Yes ☒ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Hydrology indicator (B9) observed.

# WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: WDC DGAC-09142016-1-IN-2 City/County: Davis County Sampling Date: 9/14/2016  
 Applicant/Owner: UDOT State: Utah Sampling Point: DGAC-09142016-1  
 Investigator(s): DG/AC Section, Township, Range: 26 4N 2W  
 Landform (hillslope, terrace, etc.): terrace/depression Local relief (concave, convex, none): concave Slope (%): 1%  
 Subregion (LRR): D Lat: 41.05349137 Long: -112.044788 Datum: D WGS 1983  
 Soil Map Unit Name: \_\_\_\_\_ NWI classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____	
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	
Remarks:  Sampled area is a wetland.	

## VEGETATION – Use scientific names of plants.

<b>Tree Stratum</b> (Plot size: _____) 1. _____ 2. _____ 3. _____ 4. _____ _____ = Total Cover <b>Sapling/Shrub Stratum</b> (Plot size: _____) 1. _____ 2. _____ 3. _____ 4. _____ 5. _____ _____ = Total Cover <b>Herb Stratum</b> (Plot size: <u>5 ft. radius</u> ) 1. <u>Distichlis spicata</u> <u>77%</u> <u>Yes</u> <u>FAC</u> 2. <u>Puccinellia nuttalliana</u> <u>10%</u> <u></u> <u>FACW</u> 3. <u>Suaeda occidentalis</u> <u>5%</u> <u></u> <u>FACW</u> 4. <u>Carex praegracilis</u> <u>2%</u> <u></u> <u>FACW</u> 5. <u>Schedonorus pratensis</u> <u>1%</u> <u></u> <u>FACU</u> 6. _____ 7. _____ 8. _____ _____ = Total Cover <b>Woody Vine Stratum</b> (Plot size: _____) 1. _____ 2. _____ _____ = Total Cover % Bare Ground in Herb Stratum <u>5%</u> % Cover of Biotic Crust _____	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B) <b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____ <b>Hydrophytic Vegetation Indicators:</b> <input checked="" type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. <b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No _____
Remarks:  Low/toe-slope salt grass meadow.	



# SOIL

Sampling Point: DGAC-091

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-2	10YR 2/2	100						
2-5	10YR 4/2	100						
5-11	10YR 2/1	60	10YR 5/2	40	D	M		
11-14	10YR 6/2	100						

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

- |  |  |
|--|--|
| <input type="checkbox"/> Histosol (A1)                           | <input type="checkbox"/> Sandy Redox (S5)                      |
| <input type="checkbox"/> Histic Epipedon (A2)                    | <input type="checkbox"/> Stripped Matrix (S6)                  |
| <input type="checkbox"/> Black Histic (A3)                       | <input type="checkbox"/> Loamy Mucky Mineral (F1)              |
| <input type="checkbox"/> Hydrogen Sulfide (A4)                   | <input type="checkbox"/> Loamy Gleyed Matrix (F2)              |
| <input type="checkbox"/> Stratified Layers (A5) ( <b>LRR C</b> ) | <input type="checkbox"/> Depleted Matrix (F3)                  |
| <input type="checkbox"/> 1 cm Muck (A9) ( <b>LRR D</b> )         | <input type="checkbox"/> Redox Dark Surface (F6)               |
| <input type="checkbox"/> Depleted Below Dark Surface (A11)       | <input checked="" type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12)                | <input type="checkbox"/> Redox Depressions (F8)                |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)                | <input type="checkbox"/> Vernal Pools (F9)                     |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)                |  |

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- ☐ 1 cm Muck (A9) (**LRR C**)
- ☐ 2 cm Muck (A10) (**LRR B**)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes ☒ No ☐

Remarks:

Soil profile fits Depleted Dark Surface (F7) indicator.

# HYDROLOGY

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                            | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                         | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                               | <input type="checkbox"/> Aquatic Invertebrates (B13)                   |
| <input type="checkbox"/> Water Marks (B1) ( <b>Nonriverine</b> )       | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) ( <b>Nonriverine</b> ) | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) ( <b>Nonriverine</b> )    | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input checked="" type="checkbox"/> Surface Soil Cracks (B6)           | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)     | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                     | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) (**Riverine**)
- ☐ Sediment Deposits (B2) (**Riverine**)
- ☐ Drift Deposits (B3) (**Riverine**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present? Yes ☐ No ☒ Depth (inches): \_\_\_\_\_

Water Table Present? Yes ☐ No ☒ Depth (inches): \_\_\_\_\_

Saturation Present? Yes ☐ No ☒ Depth (inches): \_\_\_\_\_  
(includes capillary fringe)

**Wetland Hydrology Present?** Yes ☒ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Hydrology indicator (B6) observed.

# WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: WDC DGAC-09142016-1-OUT City/County: Davis County Sampling Date: 9/14/2016  
 Applicant/Owner: UDOT State: Utah Sampling Point: DGAC-09142016-1-OUT  
 Investigator(s): DG/AC Section, Township, Range: 27 4N 2W  
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): none Slope (%): 1%  
 Subregion (LRR): D Lat: 41.05321288 Long: -112.0454076 Datum: D WGS 1983  
 Soil Map Unit Name: Lakeshore fine sandy loam, 0 to 1 percent slopes NWI classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/>	
Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	
Remarks:  Sampled area is not a wetland.	

## VEGETATION – Use scientific names of plants.

<b>Tree Stratum</b> (Plot size: _____) 1. _____ 2. _____ 3. _____ 4. _____ _____ = Total Cover <b>Sapling/Shrub Stratum</b> (Plot size: _____) 1. _____ 2. _____ 3. _____ 4. _____ 5. _____ _____ = Total Cover <b>Herb Stratum</b> (Plot size: <u>5 ft. radius</u> ) 1. <u>Schedonorus pratensis</u> <u>70%</u> <u>Yes</u> <u>FACU</u> 2. <u>Distichlis spicata</u> <u>50%</u> <u>Yes</u> <u>FAC</u> 3. <u>Agrostis exarata</u> <u>10%</u> <u></u> <u>FACW</u> 4. _____ 5. _____ 6. _____ 7. _____ 8. _____ _____ = Total Cover <b>Woody Vine Stratum</b> (Plot size: _____) 1. _____ 2. _____ _____ = Total Cover % Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: _____ (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50%</u> (A/B) <b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species <u>10</u> x 2 = <u>20</u> FAC species <u>50</u> x 3 = <u>150</u> FACU species <u>70</u> x 4 = <u>280</u> UPL species _____ x 5 = _____ Column Totals: <u>130</u> (A) <u>450</u> (B) Prevalence Index = B/A = <u>3.46</u> <b>Hydrophytic Vegetation Indicators:</b> ___ Dominance Test is >50% ___ Prevalence Index is ≤3.0 <sup>1</sup> ___ Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. <b>Hydrophytic Vegetation Present?</b> Yes _____ No <input checked="" type="checkbox"/>
Remarks:  Grazed horse pasture.	

# SOIL

Sampling Point: DGAC-091

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-1.5	10YR 2/1							Many roots. Mostly organic matter
1.5-3	10YR 3/2	80%						Cemented.
	10YR 2/1	20%						
3-7	10YR 3/2	98%	10YR 5/2	2%	D	M	ClLoam	
7-12	10YR 5/3	50%						
	10YR 3/2	50%						

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) (**LRR C**)
- ☐ 1 cm Muck (A9) (**LRR D**)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)

- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- ☐ 1 cm Muck (A9) (**LRR C**)
- ☐ 2 cm Muck (A10) (**LRR B**)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No ☒

Remarks:

No hydric indicators observed in soil profile.

# HYDROLOGY

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1) (**Nonriverine**)
- ☐ Sediment Deposits (B2) (**Nonriverine**)
- ☐ Drift Deposits (B3) (**Nonriverine**)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)

- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) (**Riverine**)
- ☐ Sediment Deposits (B2) (**Riverine**)
- ☐ Drift Deposits (B3) (**Riverine**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present? Yes \_\_\_\_\_ No ☒ Depth (inches): \_\_\_\_\_

Water Table Present? Yes \_\_\_\_\_ No ☒ Depth (inches): \_\_\_\_\_

Saturation Present? Yes \_\_\_\_\_ No ☒ Depth (inches): \_\_\_\_\_  
(includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No hydrology indicators observed.

# WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: WDC DGAC-09142016-1-OUT-2 City/County: Davis County Sampling Date: 9/14/2016  
 Applicant/Owner: UDOT State: Utah Sampling Point: DGAC-09142016-1-OUT-2  
 Investigator(s): DG/AC Section, Township, Range: 26 4N 2W  
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): none Slope (%): 2%  
 Subregion (LRR): D Lat: 41.05355654 Long: -112.0447501 Datum: D WGS 1983  
 Soil Map Unit Name: Lakeshore fine sandy loam, 0 to 1 percent slopes NWI classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/>	
Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	
Remarks:  Upland knoll area.	

## VEGETATION – Use scientific names of plants.

<b>Tree Stratum</b> (Plot size: _____) 1. _____ 2. _____ 3. _____ 4. _____ _____ = Total Cover <b>Sapling/Shrub Stratum</b> (Plot size: _____) 1. _____ 2. _____ 3. _____ 4. _____ 5. _____ _____ = Total Cover <b>Herb Stratum</b> (Plot size: <u>5 ft. radius</u> ) 1. <u>Distichlis spicata</u> 45% Yes FAC 2. <u>Carex praegracilis</u> 15% Yes FACW 3. <u>Hordeum jubatum</u> 15% Yes FAC 4. <u>Puccinellia nuttalliana</u> 15% Yes FACW 5. <u>Aster species</u> 5% ? 6. _____ 7. _____ 8. _____ _____ = Total Cover <b>Woody Vine Stratum</b> (Plot size: _____) 1. _____ 2. _____ _____ = Total Cover % Bare Ground in Herb Stratum <u>5%</u> % Cover of Biotic Crust _____	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>4</u> (A) Total Number of Dominant Species Across All Strata: <u>4</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B) <b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____ <b>Hydrophytic Vegetation Indicators:</b> <input checked="" type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. <b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No _____
Remarks:  Vegetation passes dominance test.	

# SOIL

Sampling Point: DGAC-091

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-1	10YR 2/1	100%						Many roots.
1-5	10YR 3/2	100%					Loam	
5-9	10YR 4/3	100%					ClLoam	
9-16	7.5YR 4/3	99%					Loam	
	10YR 2/1	1%						

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) (**LRR C**)
- ☐ 1 cm Muck (A9) (**LRR D**)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)

- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- ☐ 1 cm Muck (A9) (**LRR C**)
- ☐ 2 cm Muck (A10) (**LRR B**)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No ☒

Remarks:

No hydric indicators observed in soil profile.

# HYDROLOGY

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1) (**Nonriverine**)
- ☐ Sediment Deposits (B2) (**Nonriverine**)
- ☐ Drift Deposits (B3) (**Nonriverine**)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)

- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) (**Riverine**)
- ☐ Sediment Deposits (B2) (**Riverine**)
- ☐ Drift Deposits (B3) (**Riverine**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☒ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present? Yes \_\_\_\_\_ No ☒ Depth (inches): \_\_\_\_\_

Water Table Present? Yes \_\_\_\_\_ No ☒ Depth (inches): \_\_\_\_\_

Saturation Present? Yes \_\_\_\_\_ No ☒ Depth (inches): \_\_\_\_\_  
(includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Dry site.



# WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: WDC MNAC-08302016-2-IN City/County: Davis County Sampling Date: 8/30/2016  
 Applicant/Owner: UDOT State: Utah Sampling Point: MNAC-08302016-2  
 Investigator(s): MN/AC Section, Township, Range: 27 4N 2W  
 Landform (hillslope, terrace, etc.): terrace/depression Local relief (concave, convex, none): concave Slope (%): 0  
 Subregion (LRR): D Lat: 41.04966381 Long: -112.0519051 Datum: D WGS 1983  
 Soil Map Unit Name: Eimarsh-Playas-Pintailake complex, 0 to 1 percent slopes NWI classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil ☒, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____	
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	
Remarks: Saline wetland with hydric soils assumed based on its situation.	

## VEGETATION – Use scientific names of plants.

<b>Tree Stratum</b> (Plot size: _____) 1. _____ 2. _____ 3. _____ 4. _____ _____ = Total Cover <b>Sapling/Shrub Stratum</b> (Plot size: _____) 1. _____ 2. _____ 3. _____ 4. _____ 5. _____ _____ = Total Cover <b>Herb Stratum</b> (Plot size: <u>5 ft. radius</u> ) 1. <u>Suaeda occidentalis</u> 50% Yes FACW 2. <u>Triglochin maritima</u> 5% OBL 3. <u>Distichlis spicata</u> 5% FAC 4. _____ 5. _____ 6. _____ 7. _____ 8. _____ _____ = Total Cover <b>Woody Vine Stratum</b> (Plot size: _____) 1. _____ 2. _____ _____ = Total Cover % Bare Ground in Herb Stratum <u>40%</u> % Cover of Biotic Crust _____	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B) <b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____ <b>Hydrophytic Vegetation Indicators:</b> <input checked="" type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. <b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No _____
Remarks:	

## SOIL

Sampling Point: MNAC-08 

[illegible]

## HYDROLOGY

Wetland Hydrology Indicators:		
Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (2 or more required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) ( <b>Riverine</b> )
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) ( <b>Riverine</b> )
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) ( <b>Riverine</b> )
<input type="checkbox"/> Water Marks (B1) ( <b>Nonriverine</b> )	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) ( <b>Nonriverine</b> )	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3) ( <b>Nonriverine</b> )	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Crayfish Burrows (C8)
<input checked="" type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:  Surface soil cracks and cattle prints. No saturation.		

# WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: WDC MNAC-08302016-2-IN-2 City/County: Davis County Sampling Date: 8/30/2016  
 Applicant/Owner: UDOT State: Utah Sampling Point: MNAC-08302016-2  
 Investigator(s): MN/AC Section, Township, Range: 27 4N 2W  
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): none Slope (%): 0%  
 Subregion (LRR): D Lat: 41.05038809 Long: -112.0528459 Datum: D WGS 1983  
 Soil Map Unit Name: Eimarsh-Playas-Pintailake complex, 0 to 1 percent slopes NWI classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil ☒, or Hydrology ☒ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____	
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	
Remarks:  Saline wetland with problematic soils. Second in-point for wetland MNAC-09302016-2.	

## VEGETATION – Use scientific names of plants.

<b>Tree Stratum</b> (Plot size: _____) 1. _____ 2. _____ 3. _____ 4. _____ _____ = Total Cover <b>Sapling/Shrub Stratum</b> (Plot size: _____) 1. _____ 2. _____ 3. _____ 4. _____ 5. _____ _____ = Total Cover <b>Herb Stratum</b> (Plot size: <u>5 ft. radius</u> ) 1. <u>Distichlis spicata</u> <u>70%</u> <u>Yes</u> <u>FAC</u> 2. <u>Hordeum jubatum</u> <u>2%</u> <u></u> <u>FAC</u> 3. <u>Atriplex micrantha</u> <u>1%</u> <u></u> <u>NL</u> 4. <u>Puccinellia nuttalliana</u> <u>2%</u> <u></u> <u>FACW</u> 5. <u>Polypogon monspeliensis</u> <u>25%</u> <u>Yes</u> <u>FACW</u> 6. _____ 7. _____ 8. _____ _____ = Total Cover <b>Woody Vine Stratum</b> (Plot size: _____) 1. _____ 2. _____ _____ = Total Cover % Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B) <b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____ <b>Hydrophytic Vegetation Indicators:</b> <input checked="" type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. <b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No _____
Remarks:	

# SOIL

Sampling Point: MNAC-0824

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-3.5	10YR 3/2	100%					Loam	many roots
3.5-12	10YR 3/2	84%	7.5YR 5/6	1%	C	M	ClLoam	
	10YR 5/3	15%						

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) (**LRR C**)
- ☐ 1 cm Muck (A9) (**LRR D**)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)

- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- ☐ 1 cm Muck (A9) (**LRR C**)
- ☐ 2 cm Muck (A10) (**LRR B**)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes ☒ No ☐

Remarks:

Problematic soil profile doesn't fit an indicator but attributed to high pH and assumed hydric given vegetation, landscape position, and hydrology indication.

# HYDROLOGY

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1) (**Nonriverine**)
- ☐ Sediment Deposits (B2) (**Nonriverine**)
- ☐ Drift Deposits (B3) (**Nonriverine**)
- ☒ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)

- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) (**Riverine**)
- ☐ Sediment Deposits (B2) (**Riverine**)
- ☐ Drift Deposits (B3) (**Riverine**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☒ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present? Yes ☐ No ☒ Depth (inches): \_\_\_\_\_

Water Table Present? Yes ☐ No ☒ Depth (inches): \_\_\_\_\_

Saturation Present? Yes ☐ No ☒ Depth (inches): \_\_\_\_\_  
(includes capillary fringe)

**Wetland Hydrology Present?** Yes ☒ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

# WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: WDC MNAC-08302016-2-OUT City/County: Davis County Sampling Date: 8/30/2016  
 Applicant/Owner: UDOT State: Utah Sampling Point: MNAC-08302016-2-OUT  
 Investigator(s): MN/AC Section, Township, Range: 27 4N 2W  
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): none Slope (%): 0  
 Subregion (LRR): D Lat: 41.04974415 Long: -112.0518729 Datum: D WGS 1983  
 Soil Map Unit Name: Eimarsh-Playas-Pintailake complex, 0 to 1 percent slopes NWI classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/>	
Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	
Remarks:	

## VEGETATION – Use scientific names of plants.

<b>Tree Stratum</b> (Plot size: _____) 1. _____ 2. _____ 3. _____ 4. _____ _____ = Total Cover <b>Sapling/Shrub Stratum</b> (Plot size: _____) 1. _____ 2. _____ 3. _____ 4. _____ 5. _____ _____ = Total Cover <b>Herb Stratum</b> (Plot size: <u>5 ft. radius</u> ) 1. <u>Distichlis spicata</u> 45% Yes FAC 2. <u>Chenopodium album</u> 45% Yes FACU 3. <u>Atriplex micrantha</u> 2% NL 4. <u>Lepidium latifolium</u> 2% FAC 5. <u>Suaeda occidentalis</u> 3% FACW 6. <u>Hordeum jubatum</u> 3% FAC 7. _____ 8. _____ _____ = Total Cover <b>Woody Vine Stratum</b> (Plot size: _____) 1. _____ 2. _____ _____ = Total Cover % Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50%</u> (A/B) <b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species <u>3</u> x 2 = <u>6</u> FAC species <u>50</u> x 3 = <u>150</u> FACU species _____ x 4 = _____ UPL species <u>47</u> x 5 = <u>235</u> Column Totals: <u>100</u> (A) <u>391</u> (B) Prevalence Index = B/A = <u>3.91</u> <b>Hydrophytic Vegetation Indicators:</b> ___ Dominance Test is >50% ___ Prevalence Index is ≤3.0 <sup>1</sup> ___ Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. <b>Hydrophytic Vegetation Present?</b> Yes _____ No <input checked="" type="checkbox"/>
Remarks:	



# SOIL

Sampling Point: MNAC-0824

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-2	10YR 3/2	100%					Loam	many roots
2-12	10YR 3/1	99%					SaLoam	
	10YR 5/4	1%						

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) (**LRR C**)
- ☐ 1 cm Muck (A9) (**LRR D**)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)

- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- ☐ 1 cm Muck (A9) (**LRR C**)
- ☐ 2 cm Muck (A10) (**LRR B**)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No ☒

Remarks:

# HYDROLOGY

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1) (**Nonriverine**)
- ☐ Sediment Deposits (B2) (**Nonriverine**)
- ☐ Drift Deposits (B3) (**Nonriverine**)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)

- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) (**Riverine**)
- ☐ Sediment Deposits (B2) (**Riverine**)
- ☐ Drift Deposits (B3) (**Riverine**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present? Yes \_\_\_\_\_ No ☒ Depth (inches): \_\_\_\_\_

Water Table Present? Yes \_\_\_\_\_ No ☒ Depth (inches): \_\_\_\_\_

Saturation Present? Yes \_\_\_\_\_ No ☒ Depth (inches): \_\_\_\_\_  
(includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

# WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: WDC MNAC-08312016-2-IN City/County: Davis County Sampling Date: 8/31/2016  
 Applicant/Owner: UDOT State: Utah Sampling Point: MNAC-08312016-2  
 Investigator(s): MN/AC Section, Township, Range: 27 4N 2W  
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): none Slope (%): 0  
 Subregion (LRR): D Lat: 41.05007863 Long: -112.053322 Datum: D WGS 1983  
 Soil Map Unit Name: Eimarsh-Playas-Pintailake complex, 0 to 1 percent slopes NWI classification: PEM1/USA

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)  
 Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐  
 Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
Remarks:			

## VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)  Total Number of Dominant Species Across All Strata: <u>2</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
_____ = Total Cover				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B)  Prevalence Index = B/A = _____
<b>Sapling/Shrub Stratum (Plot size: _____)</b> 1. _____ 2. _____ 3. _____ 4. _____ 5. _____ _____ = Total Cover				
<b>Herb Stratum (Plot size: <u>5 ft. radius</u>)</b> 1. <u>Distichlis spicata</u> <u>60%</u> <u>Yes</u> <u>FAC</u> 2. <u>Cordylanthus maritimus</u> <u>5%</u> <u></u> <u>OBL</u> 3. <u>Puccinellia nuttalliana</u> <u>25%</u> <u>Yes</u> <u>FACW</u> 4. <u>Suaeda occidentalis</u> <u>10%</u> <u></u> <u>FACW</u> 5. _____ 6. _____ 7. _____ 8. _____ _____ = Total Cover				
<b>Woody Vine Stratum (Plot size: _____)</b> 1. _____ 2. _____ _____ = Total Cover				
% Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____				
Remarks:				<b>Hydrophytic Vegetation Indicators:</b> <input checked="" type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
				<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>

# SOIL

Sampling Point: MNAC-082

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-6	10YR 4/2	95%	7.5YR 7/4	5%	C	M		cemented, unable to texture
6-9	10YR 4/3	95%	10YR 3/1	5%	C	M	Clay	
9-14	7.5YR 4/3						ClLoam	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) (**LRR C**)
- ☐ 1 cm Muck (A9) (**LRR D**)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)

- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☒ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- ☐ 1 cm Muck (A9) (**LRR C**)
- ☐ 2 cm Muck (A10) (**LRR B**)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present? Yes ☒ No ☐**

Remarks:

# HYDROLOGY

**Wetland Hydrology Indicators:**

**Primary Indicators (minimum of one required; check all that apply)**

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1) (**Nonriverine**)
- ☐ Sediment Deposits (B2) (**Nonriverine**)
- ☐ Drift Deposits (B3) (**Nonriverine**)
- ☒ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)

- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

**Secondary Indicators (2 or more required)**

- ☐ Water Marks (B1) (**Riverine**)
- ☐ Sediment Deposits (B2) (**Riverine**)
- ☐ Drift Deposits (B3) (**Riverine**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☒ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present? Yes ☐ No ☒ Depth (inches): \_\_\_\_\_

Water Table Present? Yes ☐ No ☒ Depth (inches): \_\_\_\_\_

Saturation Present? Yes ☐ No ☒ Depth (inches): \_\_\_\_\_  
(includes capillary fringe)

**Wetland Hydrology Present? Yes ☒ No ☐**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Saturation and surface water in SW corner of field. Most of area is saline meadow area. Connects to Phragmites marsh on N and W.

# WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: WDC MNAC-08312016-2-IN-2 City/County: Davis County Sampling Date: 8/31/2016  
 Applicant/Owner: UDOT State: Utah Sampling Point: MNAC-08312016-2  
 Investigator(s): MN/AC Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): none Slope (%): 0%  
 Subregion (LRR): D Lat: 41.05177194 Long: -112.0534266 Datum: D WGS 1983  
 Soil Map Unit Name: Eimarsh-Playas-Pintailake complex, 0 to 1 percent slopes NWI classification: PEM1C

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland?	Yes <input checked="" type="checkbox"/> No _____
Hydric Soil Present?	Yes <input checked="" type="checkbox"/> No _____		
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/> No _____		
Remarks:			

## VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)  Total Number of Dominant Species Across All Strata: <u>2</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
_____ = Total Cover				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B)  Prevalence Index = B/A = _____
<b>Sapling/Shrub Stratum (Plot size: _____)</b> 1. _____ 2. _____ 3. _____ 4. _____ 5. _____ _____ = Total Cover				
<b>Herb Stratum (Plot size: <u>5 ft. radius</u>)</b> 1. <u>Suaeda occidentalis</u> <u>25%</u> <u>Yes</u> <u>FACW</u> 2. <u>Distichlis spicata</u> <u>50%</u> <u>Yes</u> <u>FAC</u> 3. <u>Cordylanthus maritimus</u> <u>10%</u> <u></u> <u>OBL</u> 4. <u>Juncus arcticus</u> <u>10%</u> <u></u> <u>FACW</u> 5. <u>Puccinellia nuttalliana</u> <u>5%</u> <u></u> <u>FACW</u> 6. _____ 7. _____ 8. _____ _____ = Total Cover				
<b>Woody Vine Stratum (Plot size: _____)</b> 1. _____ 2. _____ _____ = Total Cover				
% Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____				
Remarks:				<b>Hydrophytic Vegetation Indicators:</b> <input checked="" type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No _____				

# SOIL

Sampling Point: MNAC-082

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-3	10YR 3/3	100%					SiClLoam	many roots
3-14	2.5Y 5/2	85%	2.5Y 7/2	10%	C	M	SiClay	
			10YR 4/6	5%	C	PL		

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) (**LRR C**)
- ☐ 1 cm Muck (A9) (**LRR D**)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)

- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☒ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- ☐ 1 cm Muck (A9) (**LRR C**)
- ☐ 2 cm Muck (A10) (**LRR B**)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present? Yes ☒ No ☐**

Remarks:

# HYDROLOGY

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1) (**Nonriverine**)
- ☐ Sediment Deposits (B2) (**Nonriverine**)
- ☐ Drift Deposits (B3) (**Nonriverine**)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)

- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☒ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) (**Riverine**)
- ☐ Sediment Deposits (B2) (**Riverine**)
- ☐ Drift Deposits (B3) (**Riverine**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☒ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present? Yes ☐ No ☒ Depth (inches): \_\_\_\_\_

Water Table Present? Yes ☐ No ☒ Depth (inches): \_\_\_\_\_

Saturation Present? Yes ☒ No ☐ Depth (inches): 14  
(includes capillary fringe)

**Wetland Hydrology Present? Yes ☒ No ☐**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Surface water observed nearby pit.



# WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: WDC MNAC-08312016-2-OUT City/County: Davis County Sampling Date: 8/31/2016  
 Applicant/Owner: UDOT State: Utah Sampling Point: MNAC-08312016-2-OUT  
 Investigator(s): MN/AC Section, Township, Range: 27 4N 2W  
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): convex Slope (%): 1%  
 Subregion (LRR): D Lat: 41.05012842 Long: -112.0530146 Datum: D WGS 1983  
 Soil Map Unit Name: Eimarsh-Playas-Pintailake complex, 0 to 1 percent slopes NWI classification: PEM1/USA

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)  
 Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐  
 Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		
Wetland Hydrology Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		
Remarks:			

## VEGETATION – Use scientific names of plants.

<b>Tree Stratum</b> (Plot size: _____) 1. _____ 2. _____ 3. _____ 4. _____ _____ = Total Cover <b>Sapling/Shrub Stratum</b> (Plot size: _____) 1. _____ 2. _____ 3. _____ 4. _____ 5. _____ _____ = Total Cover <b>Herb Stratum</b> (Plot size: <u>5 ft. radius</u> ) 1. <u>Distichlis spicata</u> <u>40%</u> <u>Yes</u> <u>FAC</u> 2. <u>Atriplex micrantha</u> <u>40%</u> <u>Yes</u> <u>NL</u> 3. <u>Suaeda occidentalis</u> <u>5%</u> <u></u> <u>FACW</u> 4. <u>Thinopyrum intermedium</u> <u>5%</u> <u></u> <u>NL</u> 5. _____ 6. _____ 7. _____ 8. _____ _____ = Total Cover <b>Woody Vine Stratum</b> (Plot size: _____) 1. _____ 2. _____ _____ = Total Cover % Bare Ground in Herb Stratum <u>10%</u> % Cover of Biotic Crust _____	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50%</u> (A/B) <b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species <u>5</u> x 2 = <u>10</u> FAC species <u>40</u> x 3 = <u>120</u> FACU species _____ x 4 = _____ UPL species <u>45</u> x 5 = <u>225</u> Column Totals: <u>90</u> (A) <u>355</u> (B) Prevalence Index = B/A = <u>3.94</u> <b>Hydrophytic Vegetation Indicators:</b> ___ Dominance Test is >50% ___ Prevalence Index is ≤3.0 <sup>1</sup> ___ Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. <b>Hydrophytic Vegetation Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Remarks:	

# SOIL

Sampling Point: MNAC-082

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-11	7.5YR 4/4	100%					Loam	gravelly

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) (**LRR C**)
- ☐ 1 cm Muck (A9) (**LRR D**)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)

- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- ☐ 1 cm Muck (A9) (**LRR C**)
- ☐ 2 cm Muck (A10) (**LRR B**)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: rock  
Depth (inches): 11"

**Hydric Soil Present?** Yes ☐ No ☒

Remarks:

# HYDROLOGY

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1) (**Nonriverine**)
- ☐ Sediment Deposits (B2) (**Nonriverine**)
- ☐ Drift Deposits (B3) (**Nonriverine**)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)

- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) (**Riverine**)
- ☐ Sediment Deposits (B2) (**Riverine**)
- ☐ Drift Deposits (B3) (**Riverine**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present? Yes ☐ No ☒ Depth (inches): \_\_\_\_\_  
Water Table Present? Yes ☐ No ☒ Depth (inches): \_\_\_\_\_  
Saturation Present? Yes ☐ No ☒ Depth (inches): \_\_\_\_\_  
(includes capillary fringe)

**Wetland Hydrology Present?** Yes ☐ No ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

# WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: WDC MNAC-08312016-5-IN City/County: Davis County Sampling Date: 8/31/2016  
 Applicant/Owner: UDOT State: Utah Sampling Point: MNAC-08312016-5-IN  
 Investigator(s): MN/AC Section, Township, Range: 27 4N 2W  
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): none Slope (%): 0%  
 Subregion (LRR): D Lat: 41.05096628 Long: -112.0520079 Datum: D WGS 1983  
 Soil Map Unit Name: Eimarsh-Playas-Pintailake complex, 0 to 1 percent slopes NWI classification: PEM1/USA

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)  
 Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐  
 Are Vegetation ☐, Soil ☒, or Hydrology ☒ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
Remarks:  Saline wetland.			

## VEGETATION – Use scientific names of plants.

<b>Tree Stratum</b> (Plot size: _____) 1. _____ 2. _____ 3. _____ 4. _____ _____ = Total Cover <b>Sapling/Shrub Stratum</b> (Plot size: _____) 1. _____ 2. _____ 3. _____ 4. _____ 5. _____ _____ = Total Cover <b>Herb Stratum</b> (Plot size: <u>5 ft. radius</u> ) 1. <u>Distichlis spicata</u> 90% Yes FAC 2. <u>Hordeum jubatum</u> 9% FAC 3. <u>Panicum capillare</u> 1% FACU 4. _____ 5. _____ 6. _____ 7. _____ 8. _____ _____ = Total Cover <b>Woody Vine Stratum</b> (Plot size: _____) 1. _____ 2. _____ _____ = Total Cover % Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: _____ (A) Total Number of Dominant Species Across All Strata: _____ (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (A/B) <b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____ <b>Hydrophytic Vegetation Indicators:</b> <input checked="" type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. <b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Remarks:	

## SOIL

Sampling Point: MNAC-082

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-6	2.5Y 4/1	90%	10YR 6/2	10%				too hard to texture
6-13	10YR 6/2	90%	Gley 1 4/N	10%	C	M	Clay	
13-16	10YR 6/2	99%	10YR 4/6	1%	C	M		

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) (**LRR C**)
- ☐ 1 cm Muck (A9) (**LRR D**)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)

- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☒ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- ☐ 1 cm Muck (A9) (**LRR C**)
- ☐ 2 cm Muck (A10) (**LRR B**)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present? Yes ☒ No ☐**

Remarks:

## HYDROLOGY

**Wetland Hydrology Indicators:**

**Primary Indicators (minimum of one required; check all that apply)**

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1) (**Nonriverine**)
- ☐ Sediment Deposits (B2) (**Nonriverine**)
- ☐ Drift Deposits (B3) (**Nonriverine**)
- ☒ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)

- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

**Secondary Indicators (2 or more required)**

- ☐ Water Marks (B1) (**Riverine**)
- ☐ Sediment Deposits (B2) (**Riverine**)
- ☐ Drift Deposits (B3) (**Riverine**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☒ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present? Yes ☐ No ☒ Depth (inches): \_\_\_\_\_

Water Table Present? Yes ☐ No ☒ Depth (inches): \_\_\_\_\_

Saturation Present? Yes ☐ No ☒ Depth (inches): \_\_\_\_\_  
(includes capillary fringe)

**Wetland Hydrology Present? Yes ☒ No ☐**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Heavy vegetation but ground is bumpy. Clear areas show surface soil cracks.

# WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: WDC MNAC-09012016-1-IN City/County: Davis County Sampling Date: 9/1/2016  
 Applicant/Owner: UDOT State: Utah Sampling Point: MNAC-09012016-1  
 Investigator(s): MN/AC Section, Township, Range: 27 4N 2W  
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): none Slope (%): 1%  
 Subregion (LRR): D Lat: 41.05172111 Long: -112.0514715 Datum: D WGS 1983  
 Soil Map Unit Name: Ford loam, 0 to 1 percent slopes NWI classification: PEM1/USA

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☐ No ☐ (If no, explain in Remarks.)  
 Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐  
 Are Vegetation ☐, Soil ☒, or Hydrology ☒ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Hydic Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
Remarks: Problematic soils (high pH) assumed hydric in saline wetland based on vegetation community, hydrology indication, and landscape position.		

## VEGETATION – Use scientific names of plants.

<b>Tree Stratum</b> (Plot size: _____) 1. _____ 2. _____ 3. _____ 4. _____ _____ = Total Cover <b>Sapling/Shrub Stratum</b> (Plot size: _____) 1. _____ 2. _____ 3. _____ 4. _____ 5. _____ _____ = Total Cover <b>Herb Stratum</b> (Plot size: <u>5 ft radius</u> ) 1. <u>Distichlis spicata</u> 65% Yes FAC 2. <u>Carex praegracilis</u> 25% Yes FACW 3. <u>Hordeum jubatum</u> 3% FAC 4. <u>Cordylanthus maritimus</u> 2% OBL 5. <u>Suaeda occidentalis</u> 1% FACW 6. <u>Puccinellia nuttalliana</u> 2% FACW 7. <u>Juncus arcticus</u> 2% FACW 8. _____ 100% = Total Cover <b>Woody Vine Stratum</b> (Plot size: _____) 1. _____ 2. _____ _____ = Total Cover % Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B) <b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____ <b>Hydrophytic Vegetation Indicators:</b> <input checked="" type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. <b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Remarks:	



# SOIL

Sampling Point: MNAC-09

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-2.5	10YR 2/2	100%						root mass
2.5-14	10YR 2/1	95%	10YR 5/3	5%			ClLoam	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) (**LRR C**)
- ☐ 1 cm Muck (A9) (**LRR D**)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)

- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- ☐ 1 cm Muck (A9) (**LRR C**)
- ☐ 2 cm Muck (A10) (**LRR B**)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present? Yes ☒ No ☐**

Remarks:

Problematic soils.

# HYDROLOGY

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1) (**Nonriverine**)
- ☐ Sediment Deposits (B2) (**Nonriverine**)
- ☐ Drift Deposits (B3) (**Nonriverine**)
- ☒ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)

- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) (**Riverine**)
- ☐ Sediment Deposits (B2) (**Riverine**)
- ☐ Drift Deposits (B3) (**Riverine**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☒ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present? Yes ☐ No ☒ Depth (inches): \_\_\_\_\_

Water Table Present? Yes ☐ No ☒ Depth (inches): \_\_\_\_\_

Saturation Present? Yes ☐ No ☒ Depth (inches): \_\_\_\_\_  
(includes capillary fringe)

**Wetland Hydrology Present? Yes ☒ No ☐**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

# WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: WDC MNAC-09012016-1-IN-2 City/County: Davis County Sampling Date: 9/1/2016  
 Applicant/Owner: UDOT State: Utah Sampling Point: MNAC-09012016-1-IN-2  
 Investigator(s): MN/AC Section, Township, Range: 27 4N 2W  
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): concave Slope (%): 0%  
 Subregion (LRR): D Lat: 41.0521089 Long: -112.0520875 Datum: D WGS 1983  
 Soil Map Unit Name: Ford loam, 0 to 1 percent slopes NWI classification: PEM1C

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)  
 Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐  
 Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Remarks:  Within disturbed area. Problematic soils (high pH) assumed hydric in saline wetland based on vegetation community, hydrology indication, and landscape position.	

## VEGETATION – Use scientific names of plants.

<b>Tree Stratum</b> (Plot size: _____) 1. _____ 2. _____ 3. _____ 4. _____ _____ = Total Cover <b>Sapling/Shrub Stratum</b> (Plot size: _____) 1. _____ 2. _____ 3. _____ 4. _____ 5. _____ _____ = Total Cover <b>Herb Stratum</b> (Plot size: <u>5 ft. radius</u> ) 1. <u>Distichlis spicata</u> <u>75%</u> <u>Yes</u> <u>FAC</u> 2. <u>Carex praegracilis</u> <u>10%</u> <u></u> <u>FACW</u> 3. <u>Puccinellia nuttalliana</u> <u>4%</u> <u></u> <u>FACW</u> 4. <u>Cordylanthus maritimus</u> <u>2%</u> <u></u> <u>OBL</u> 5. <u>Hordeum jubatum</u> <u>2%</u> <u></u> <u>FAC</u> 6. <u>Juncus arcticus</u> <u>2%</u> <u></u> <u>FACW</u> 7. <u>Suaeda occidentalis</u> <u>5%</u> <u></u> <u>FACW</u> 8. _____ _____ = Total Cover <b>Woody Vine Stratum</b> (Plot size: _____) 1. _____ 2. _____ _____ = Total Cover % Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B) <b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____ <b>Hydrophytic Vegetation Indicators:</b> <input checked="" type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. <b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
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Remarks:

# SOIL

Sampling Point: MNAC-090

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-3	10YR 3/2	100%						too many roots to texture
3-7	10YR 4/2	97%	10YR 4/6	3%	C	PL/M	ClLoam	redox along PL and in matrix
7-14	10YR 3/2	100%					Clay	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) (**LRR C**)
- ☐ 1 cm Muck (A9) (**LRR D**)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)

- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- ☐ 1 cm Muck (A9) (**LRR C**)
- ☐ 2 cm Muck (A10) (**LRR B**)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No ☒

Remarks:

Problematic soil (likely high pH). Close to A11 but horizon isn't thick enough.

# HYDROLOGY

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1) (**Nonriverine**)
- ☐ Sediment Deposits (B2) (**Nonriverine**)
- ☐ Drift Deposits (B3) (**Nonriverine**)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)

- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☒ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) (**Riverine**)
- ☐ Sediment Deposits (B2) (**Riverine**)
- ☐ Drift Deposits (B3) (**Riverine**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☒ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present? Yes \_\_\_\_\_ No ☒ Depth (inches): \_\_\_\_\_

Water Table Present? Yes \_\_\_\_\_ No ☒ Depth (inches): \_\_\_\_\_

Saturation Present? Yes \_\_\_\_\_ No ☒ Depth (inches): \_\_\_\_\_  
(includes capillary fringe)

**Wetland Hydrology Present?** Yes ☒ No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

# WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: WDC MNAC-09012016-1-OUT City/County: Davis County Sampling Date: 9/1/2016  
 Applicant/Owner: UDOT State: Utah Sampling Point: MNAC-09012016-1-OUT  
 Investigator(s): MN/AC Section, Township, Range: 27 4N 2W  
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): convex Slope (%): 0%  
 Subregion (LRR): D Lat: 41.05180648 Long: -112.0513031 Datum: D WGS 1983  
 Soil Map Unit Name: Ford loam, 0 to 1 percent slopes NWI classification: PEM1/USA

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)  
 Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐  
 Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Remarks: Disturbed. May be filled. Trash in area.	

## VEGETATION – Use scientific names of plants.

<b>Tree Stratum</b> (Plot size: _____) 1. _____ 2. _____ 3. _____ 4. _____ _____ = Total Cover <b>Sapling/Shrub Stratum</b> (Plot size: _____) 1. _____ 2. _____ 3. _____ 4. _____ 5. _____ _____ = Total Cover <b>Herb Stratum</b> (Plot size: <u>5 ft. radius</u> ) 1. <u>Distichlis spicata</u> 40% Yes FAC 2. <u>Atriplex micrantha</u> 25% Yes NL 3. <u>Bromus racemosus</u> 4% NL 4. <u>Suaeda occidentalis</u> 25% Yes FACW 5. <u>Hordeum jubatum</u> 2% FAC 6. <u>Sporobolus airoides</u> 2% FAC 7. <u>Carex praegracilis</u> 2% FACW 8. _____ 100% = Total Cover <b>Woody Vine Stratum</b> (Plot size: _____) 1. _____ 2. _____ _____ = Total Cover % Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>66%</u> (A/B) <b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____ <b>Hydrophytic Vegetation Indicators:</b> <input checked="" type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. <b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Remarks:	

# SOIL

Sampling Point: MNAC-09

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-2	10YR 2/2	100%						root mass
2-6	7.5YR 3/2	100%					Loam	
6-14	7.5YR 2.5/3	100%					Loam	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) (**LRR C**)
- ☐ 1 cm Muck (A9) (**LRR D**)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)

- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- ☐ 1 cm Muck (A9) (**LRR C**)
- ☐ 2 cm Muck (A10) (**LRR B**)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No ☒

Remarks:

# HYDROLOGY

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1) (**Nonriverine**)
- ☐ Sediment Deposits (B2) (**Nonriverine**)
- ☐ Drift Deposits (B3) (**Nonriverine**)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)

- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) (**Riverine**)
- ☐ Sediment Deposits (B2) (**Riverine**)
- ☐ Drift Deposits (B3) (**Riverine**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present? Yes \_\_\_\_\_ No ☒ Depth (inches): \_\_\_\_\_

Water Table Present? Yes \_\_\_\_\_ No ☒ Depth (inches): \_\_\_\_\_

Saturation Present? Yes \_\_\_\_\_ No ☒ Depth (inches): \_\_\_\_\_  
(includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:



# WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: WDC MNAC-09012016-1-OUT-2 City/County: Davis County Sampling Date: 9/1/2016  
 Applicant/Owner: UDOT State: Utah Sampling Point: MNAC-09012016-1-OUT-2  
 Investigator(s): MN/AC Section, Township, Range: 27 4N 2W  
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): none Slope (%): 0%  
 Subregion (LRR): D Lat: 41.05214603 Long: -112.0518706 Datum: D WGS 1983  
 Soil Map Unit Name: Ford loam, 0 to 1 percent slopes NWI classification: PEM1/USA

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)  
 Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐  
 Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Remarks:	

## VEGETATION – Use scientific names of plants.

<b>Tree Stratum</b> (Plot size: _____) 1. _____ 2. _____ 3. _____ 4. _____ _____ = Total Cover <b>Sapling/Shrub Stratum</b> (Plot size: _____) 1. _____ 2. _____ 3. _____ 4. _____ 5. _____ _____ = Total Cover <b>Herb Stratum</b> (Plot size: <u>5 ft. radius</u> ) 1. <u>Distichlis spicata</u> 20% Yes FAC 2. <u>Aster species</u> 5% _____ 3. <u>Ambrosia artemisifolia</u> 30% Yes FACU 4. <u>Carex praegracilis</u> 20% Yes FACW 5. <u>Hordeum jubatum</u> 5% FAC 6. <u>Trifolium fragiferum</u> 10% FAC 7. <u>Schedonorus pratensis</u> 10% FACU 8. _____ 100% = Total Cover <b>Woody Vine Stratum</b> (Plot size: _____) 1. _____ 2. _____ _____ = Total Cover % Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>66%</u> (A/B) <b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____ <b>Hydrophytic Vegetation Indicators:</b> <input checked="" type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. <b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Remarks:	

# SOIL

Sampling Point: MNAC-09

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-4	10YR 4/2	100%						root mass
4-10	10YR 5/4	100%					LoSand	
10-13	10YR 2/1	90%					Clay	mixed matrix with sand
	10YR 5/4	10%						

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) (**LRR C**)
- ☐ 1 cm Muck (A9) (**LRR D**)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)

- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- ☐ 1 cm Muck (A9) (**LRR C**)
- ☐ 2 cm Muck (A10) (**LRR B**)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No ☒

Remarks:

# HYDROLOGY

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1) (**Nonriverine**)
- ☐ Sediment Deposits (B2) (**Nonriverine**)
- ☐ Drift Deposits (B3) (**Nonriverine**)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)

- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) (**Riverine**)
- ☐ Sediment Deposits (B2) (**Riverine**)
- ☐ Drift Deposits (B3) (**Riverine**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present? Yes \_\_\_\_\_ No ☒ Depth (inches): \_\_\_\_\_

Water Table Present? Yes \_\_\_\_\_ No ☒ Depth (inches): \_\_\_\_\_

Saturation Present? Yes \_\_\_\_\_ No ☒ Depth (inches): \_\_\_\_\_  
(includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

# WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: WDC MNAC-09012016-2-IN City/County: Davis County Sampling Date: 9/1/2016  
 Applicant/Owner: UDOT State: Utah Sampling Point: MNAC-09012016-2  
 Investigator(s): MN/AC Section, Township, Range: 27 4N 2W  
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): none Slope (%): 0%  
 Subregion (LRR): D Lat: 41.05297747 Long: -112.0539452 Datum: D WGS 1983  
 Soil Map Unit Name: Eimarsh-Playas-Pintailake complex, 0 to 1 percent slopes NWI classification: PEM1C

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)  
 Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐  
 Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
Remarks:			

## VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)  Total Number of Dominant Species Across All Strata: <u>1</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
_____ = Total Cover				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B)  Prevalence Index = B/A = _____
<b>Sapling/Shrub Stratum (Plot size: _____)</b> 1. _____ 2. _____ 3. _____ 4. _____ 5. _____ _____ = Total Cover				
<b>Herb Stratum (Plot size: <u>5 ft. radius</u>)</b> 1. <u>Juncus arcticus</u> <u>80%</u> <u>Yes</u> <u>FACW</u> 2. <u>Lepidium latifolium</u> <u>10%</u> <u></u> <u>FAC</u> 3. <u>Distichlis spicata</u> <u>10%</u> <u></u> <u>FAC</u> 4. _____ 5. _____ 6. _____ 7. _____ 8. _____ _____ = Total Cover				
<b>Woody Vine Stratum (Plot size: _____)</b> 1. _____ 2. _____ _____ = Total Cover				
% Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____				
Remarks:				<b>Hydrophytic Vegetation Indicators:</b> <input checked="" type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
				<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>

## SOIL

Sampling Point: MNAC-09 

[illegible]

## HYDROLOGY

Wetland Hydrology Indicators:		
Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (2 or more required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) ( <b>Riverine</b> )
<input checked="" type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) ( <b>Riverine</b> )
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) ( <b>Riverine</b> )
<input type="checkbox"/> Water Marks (B1) ( <b>Nonriverine</b> )	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) ( <b>Nonriverine</b> )	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3) ( <b>Nonriverine</b> )	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>10</u> Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

# WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: WDC MNAC-09012016-2-OUT City/County: Davis County Sampling Date: 9/1/2016  
 Applicant/Owner: UDOT State: Utah Sampling Point: MNAC-09012016-2-OUT  
 Investigator(s): MN/AC Section, Township, Range: 27 4N 2W  
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): none Slope (%): 9%  
 Subregion (LRR): D Lat: 41.05302743 Long: -112.0538636 Datum: D WGS 1983  
 Soil Map Unit Name: Cudahy silt loam, 0 to 1 percent slopes NWI classification: PEM1C

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)  
 Are Vegetation ☒, Soil ☐, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐  
 Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Remarks: Disturbed area near wetland with lacks soil indicators.	

## VEGETATION – Use scientific names of plants.

<b>Tree Stratum</b> (Plot size: _____) 1. _____ 2. _____ 3. _____ 4. _____ _____ = Total Cover <b>Sapling/Shrub Stratum</b> (Plot size: _____) 1. _____ 2. _____ 3. _____ 4. _____ 5. _____ _____ = Total Cover <b>Herb Stratum</b> (Plot size: <u>5 ft. radius</u> ) 1. <u>Lepidium latifolium</u> <u>60%</u> <u>Yes</u> <u>FAC</u> 2. _____ 3. _____ 4. _____ 5. _____ 6. _____ 7. _____ 8. _____ _____ = Total Cover <b>Woody Vine Stratum</b> (Plot size: _____) 1. _____ 2. _____ _____ = Total Cover % Bare Ground in Herb Stratum <u>40%</u> % Cover of Biotic Crust _____	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B) <b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____ <b>Hydrophytic Vegetation Indicators:</b> <input checked="" type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. <b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
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Remarks:  
Disturbed area adjacent to wetland (wetland has L. latifolium, J. arcticus, and D. spicata).



# SOIL

Sampling Point: MNAC-090

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-2	10YR 2/2	100%						many roots
2-13	10YR 2/2	100%					Clay	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                           | <input type="checkbox"/> Sandy Redox (S5)           |
| <input type="checkbox"/> Histic Epipedon (A2)                    | <input type="checkbox"/> Stripped Matrix (S6)       |
| <input type="checkbox"/> Black Histic (A3)                       | <input type="checkbox"/> Loamy Mucky Mineral (F1)   |
| <input type="checkbox"/> Hydrogen Sulfide (A4)                   | <input type="checkbox"/> Loamy Gleyed Matrix (F2)   |
| <input type="checkbox"/> Stratified Layers (A5) ( <b>LRR C</b> ) | <input type="checkbox"/> Depleted Matrix (F3)       |
| <input type="checkbox"/> 1 cm Muck (A9) ( <b>LRR D</b> )         | <input type="checkbox"/> Redox Dark Surface (F6)    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11)       | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12)                | <input type="checkbox"/> Redox Depressions (F8)     |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)                | <input type="checkbox"/> Vernal Pools (F9)          |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)                |   |

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- ☐ 1 cm Muck (A9) (**LRR C**)
- ☐ 2 cm Muck (A10) (**LRR B**)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No ☒

Remarks:

# HYDROLOGY

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                            | <input type="checkbox"/> Salt Crust (B11)                              |
| <input checked="" type="checkbox"/> High Water Table (A2)              | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input checked="" type="checkbox"/> Saturation (A3)                    | <input type="checkbox"/> Aquatic Invertebrates (B13)                   |
| <input type="checkbox"/> Water Marks (B1) ( <b>Nonriverine</b> )       | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) ( <b>Nonriverine</b> ) | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) ( <b>Nonriverine</b> )    | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                      | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)     | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                     | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) (**Riverine**)
- ☐ Sediment Deposits (B2) (**Riverine**)
- ☐ Drift Deposits (B3) (**Riverine**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present? Yes \_\_\_\_\_ No ☒ Depth (inches): \_\_\_\_\_

Water Table Present? Yes ☒ No \_\_\_\_\_ Depth (inches): 8

Saturation Present? Yes ☒ No \_\_\_\_\_ Depth (inches): \_\_\_\_\_  
(includes capillary fringe)

**Wetland Hydrology Present?** Yes ☒ No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Very wet soil.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 5/2/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 5 Sampling Point: 14-N-201205021205  
 Investigators: Paul Dawson Ron Kass Section, Township, Range S 23 T 4 R 2  
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): None Slope(%) 0  
 Subregion (LRR): LRR D Lat: 41.0604516939 Long: -112.041662378 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Ford loam, shallow water table, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> <b>Wetland ID:</b> _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	

Remarks:  
 Site shows remnant hydrophytic vegetation, maybe a relic wetland, but soils fail.

## VEGETATION— Use scientific names of plants.

**Absolute % Cover** **Dominant Species** **Indicator Status**

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

Juncus arcticus	70	Y	FACW
Dipsacus fullonum	10	N	FAC
Distichlis spicata	5	N	FAC
Muhlenbergia asperifolia	5	N	FACW
	90	=Total Cover	

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across all Strata: 1 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>75</u>	x 2 = <u>150</u>
FAC species <u>15</u>	x 3 = <u>45</u>
FACU species <u>0</u>	x 4 = <u>0</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>90</u> (A)	<u>195</u> (B)

Prevalence Index = B/A = 2.17

### Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
 Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No \_\_\_\_\_

% Bare Ground in Herb Stratum 0 % Cover of Biotic Crust \_\_\_\_\_

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation is hydrophytic.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 4	10YR	3.0 / 2	100				SILT LOAM	
4 to 18	10YR	3.0 / 1	100				SANDY LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- ☐ Histosol (A1)  
☐ Histic Epipedon (A2)  
☐ Black Histic (A3)  
☐ Hydrogen Sulfide (A4)  
☐ Stratified Layers (A5) LRR C  
☐ 1 cm Muck (A9) LRR F D  
☐ Depleted Below Dark Surface (A11)  
☐ Thick Dark Surface (A12)  
☐ Sandy Mucky Mineral (S1)  
☐ Sandy Gleyed Matrix (S4)

- ☐ Sandy Redox (S5)  
☐ Stripped Matrix (S6)  
☐ Loamy Mucky Mineral (F1)  
☐ Loamy Gleyed Matrix (F2)  
☐ Depleted Matrix (F3)  
☐ Redox Dark Surface (F6)  
☐ Depleted Dark Surface (F7)  
☐ Redox Depressions (F8)  
☐ Vernal Pools (F9)

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)  
☐ 2 cm Muck (A10) (LRR B)  
☐ Reduced Vertic (F18)  
☐ Red Parent Material (TF2)  
☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No X

## Remarks:

Soil fails to indicate hydric conditions.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)  
☐ High Water Table (A2)  
☐ Saturation (A3)  
☐ Water Marks (B1) (Nonriverine)  
☐ Sediment Deposits (B2) (Nonriverine)  
☐ Drift Deposits (B3) (Nonriverine)  
☐ Surface Soil Cracks (B6)  
☐ Inundation Visible on Aerial Imagery (B7)  
☐ Water-Stained Leaves (B9)  
☐ Salt Crust (B11)  
☐ Biotic Crust (B12)  
☐ Aquatic Fauna (B13)  
☐ Hydrogen Sulfide Odor (C1)  
☐ Oxidized Rhizospheres along Living Roots (C3)  
☐ Presence of Reduced Iron (C4)  
☐ Recent Iron Reduction in Tilled Soils (C6)  
☐ Thin Muck Surface (C7)  
☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)  
☐ Sediment Deposits (B2) (Riverine)  
☐ Drift Deposits (B3) (Riverine)  
☐ Drainage Patterns (B10)  
☐ Dry-Season Water Table (C2)  
☐ Crayfish Burrows (C8)  
☐ Saturation Visible on Aerial Imag.(C9)  
☐ Shallow Aquitard (D3)  
☒ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_  
Water Table Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_  
Saturation Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_  
(includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

Area lacks sufficient evidence for wetland hydrology.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 6/4/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 5 Sampling Point: 14-N-201206041535  
 Investigators: Mike Perkins Section, Township, Range S 26 T 4 R 2  
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): Concave Slope(%) 2  
 Subregion (LRR): LRR D Lat: 41.0591977251 Long: -112.040297442 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Ford loam, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> <b>Wetland ID:</b> _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	

Remarks:  
 Low spot in irrigated pasture does not meet wetland parameters for hydrology & soils.

## VEGETATION— Use scientific names of plants.

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
Carex nebrascensis	50	Y	OBL
Eleocharis palustris	25	Y	OBL
Schoenoplectus pungens	25	Y	OBL
Typha latifolia	25	Y	OBL
Puccinellia nuttalliana	20	N	FACW
Distichlis spicata	15	N	FAC
Festuca arundinacea	5	N	FACU
	165	=Total Cover	

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 4 (A)  
 Total Number of Dominant Species Across all Strata: 4 (B)  
 Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>125</u>	x 1 = <u>125</u>
FACW species <u>20</u>	x 2 = <u>40</u>
FAC species <u>15</u>	x 3 = <u>45</u>
FACU species <u>5</u>	x 4 = <u>20</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>165</u> (A)	<u>230</u> (B)
Prevalence Index = B/A= <u>1.39</u>	

### Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
 Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

### Hydrophytic

Vegetation Present? Yes X No \_\_\_\_\_

% Bare Ground in Herb Stratum 10 % Cover of Biotic Crust

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation is hydrophytic.

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix			Redox Features				Texture	Remarks
	Color (moist)		%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 3	10YR	3.0/ 3	100					SILTY CLAY LOAM	Organic
3 to 16	10YR	3.0/ 2	100					SILTY CLAY LOAM	
16 to 20	10YR	4.0/ 2	100					SILTY CLAY	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.      <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators:**

☐ Histosol (A1)☐ Histic Epipedon (A2)☐ Black Histic (A3)☐ Hydrogen Sulfide (A4)☐ Stratified Layers (A5) LRR C☐ 1 cm Muck (A9) LRR F D☐ Depleted Below Dark Surface (A11)☐ Thick Dark Surface (A12)☐ Sandy Mucky Mineral (S1)☐ Sandy Gleyed Matrix (S4)

☐ Sandy Redox (S5)☐ Stripped Matrix (S6)☐ Loamy Mucky Mineral (F1)☐ Loamy Gleyed Matrix (F2)☐ Depleted Matrix (F3)☐ Redox Dark Surface (F6)☐ Depleted Dark Surface (F7)☐ Redox Depressions (F8)☐ Vernal Pools (F9)

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

☐ 1 cm Muck (A9) (LRR C)☐ 2 cm Muck (A10) (LRR B)☐ Reduced Vertic (F18)☐ Red Parent Material (TF2)☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: Depth (inches):

Hydric Soil Present?

Yes  No 

X

Remarks:

Soil fails to indicate hydric conditions.

HYDROLOGY

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

☐ Surface Water (A1)☐ High Water Table (A2)☐ Saturation (A3)☐ Water Marks (B1) (Nonriverine)☐ Sediment Deposits (B2) (Nonriverine)☐ Drift Deposits (B3) (Nonriverine)☐ Surface Soil Cracks (B6)☐ Inundation Visible on Aerial Imagery (B7)☐ Water-Stained Leaves (B9)

☐ Salt Crust (B11)☐ Biotic Crust (B12)☐ Aquatic Fauna (B13)☐ Hydrogen Sulfide Odor (C1)☐ Oxidized Rhizospheres along Living Roots (C3)☐ Presence of Reduced Iron (C4)☐ Recent Iron Reduction in Tilled Soils (C6)☐ Thin Muck Surface (C7)☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

☐ Water Marks (B1) (Riverine)☐ Sediment Deposits (B2) (Riverine)☐ Drift Deposits (B3) (Riverine)☐ Drainage Patterns (B10)☐ Dry-Season Water Table (C2)☐ Crayfish Burrows (C8)☐ Saturation Visible on Aerial Imag.(C9)☐ Shallow Aquitard (D3)☒ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present?

Yes  No 

X

Water Table Present?

Yes  No 

X

Saturation Present?

Yes 

X

 No

(includes capillary fringe)

Depth (inches): 

--

Depth (inches): 

--

Depth (inches): 

14

Wetland Hydrology Present?

Yes  No 

X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Area lacks sufficient evidence for wetland hydrology.

US Army Corps of Engineers

HDR

Arid West – Version 2.0



# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 6/4/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 5 Sampling Point: 14-N-201206041610  
 Investigators: Mike Perkins Section, Township, Range S 26 T 4 R 2  
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): Concave Slope(%) 2  
 Subregion (LRR): LRR D Lat: 41.0582415497 Long: -112.041083663 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Ford loam, shallow water table, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> <b>Wetland ID:</b> _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	

Remarks:  
 Low spot is a swale-like feature within irrigated pasture; soils & hydrology fail.

## VEGETATION— Use scientific names of plants.

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
Carex nebrascensis	30	Y	OBL
Distichlis spicata	25	Y	FAC
Festuca arundinacea	25	Y	FACU
Carex praegracilis	20	N	FACW
Trifolium repens	20	N	FACU
Eleocharis palustris	10	N	OBL
	130	=Total Cover	

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across all Strata: 3 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 66.7% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>40</u>	x 1 = <u>40</u>
FACW species <u>20</u>	x 2 = <u>40</u>
FAC species <u>25</u>	x 3 = <u>75</u>
FACU species <u>45</u>	x 4 = <u>180</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>130</u> (A)	<u>335</u> (B)

Prevalence Index = B/A = 2.58

### Hydrophytic Vegetation Indicators:

\_\_\_\_ Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
 \_\_\_\_ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 \_\_\_\_ Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No \_\_\_\_\_

% Bare Ground in Herb Stratum 5 % Cover of Biotic Crust \_\_\_\_\_

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation is hydrophytic.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 1	10YR	4.0 / 3	100				SILTY CLAY LOAM	Organic
1 to 16	10YR	3.0 / 2	100				SILTY CLAY LOAM	
16 to 19	10YR	4.0 / 2	100				SILTY CLAY LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- ☐ Histosol (A1)  
☐ Histic Epipedon (A2)  
☐ Black Histic (A3)  
☐ Hydrogen Sulfide (A4)  
☐ Stratified Layers (A5) LRR C  
☐ 1 cm Muck (A9) LRR F D  
☐ Depleted Below Dark Surface (A11)  
☐ Thick Dark Surface (A12)  
☐ Sandy Mucky Mineral (S1)  
☐ Sandy Gleyed Matrix (S4)

- ☐ Sandy Redox (S5)  
☐ Stripped Matrix (S6)  
☐ Loamy Mucky Mineral (F1)  
☐ Loamy Gleyed Matrix (F2)  
☐ Depleted Matrix (F3)  
☐ Redox Dark Surface (F6)  
☐ Depleted Dark Surface (F7)  
☐ Redox Depressions (F8)  
☐ Vernal Pools (F9)

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)  
☐ 2 cm Muck (A10) (LRR B)  
☐ Reduced Vertic (F18)  
☐ Red Parent Material (TF2)  
☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No X

## Remarks:

Soil fails to indicate hydric conditions.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)  
☐ High Water Table (A2)  
☐ Saturation (A3)  
☐ Water Marks (B1) (Nonriverine)  
☐ Sediment Deposits (B2) (Nonriverine)  
☐ Drift Deposits (B3) (Nonriverine)  
☐ Surface Soil Cracks (B6)  
☐ Inundation Visible on Aerial Imagery (B7)  
☐ Water-Stained Leaves (B9)  
☐ Salt Crust (B11)  
☐ Biotic Crust (B12)  
☐ Aquatic Fauna (B13)  
☐ Hydrogen Sulfide Odor (C1)  
☐ Oxidized Rhizospheres along Living Roots (C3)  
☐ Presence of Reduced Iron (C4)  
☐ Recent Iron Reduction in Tilled Soils (C6)  
☐ Thin Muck Surface (C7)  
☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)  
☐ Sediment Deposits (B2) (Riverine)  
☐ Drift Deposits (B3) (Riverine)  
☐ Drainage Patterns (B10)  
☐ Dry-Season Water Table (C2)  
☐ Crayfish Burrows (C8)  
☐ Saturation Visible on Aerial Imag.(C9)  
☐ Shallow Aquitard (D3)  
☒ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_  
Water Table Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_  
Saturation Present? Yes \_\_\_\_\_ No X Depth (inches): 15  
(includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

Area lacks sufficient evidence for wetland hydrology.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 6/5/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 5 Sampling Point: 14-N-201206051008  
 Investigators: Donovan Gross Section, Township, Range S 26 T 4 R 2  
 Landform (hillslope, terrace, etc.): Basin Local Relief (concave, convex, none): Concave Slope(%) 2  
 Subregion (LRR): LRR D Lat: 41.0570170216 Long: -112.036282238 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Ford loam, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> <b>Wetland ID:</b> _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	
Remarks: Upland pit.	

## VEGETATION— Use scientific names of plants.

<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
<u>40</u>	<u>Y</u>	<u>UPL</u>
<u>25</u>	<u>Y</u>	<u>FACU</u>
<u>10</u>	<u>N</u>	<u>FAC</u>
<u>5</u>	<u>N</u>	<u>FACW</u>
<u>80</u>	=Total Cover	

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

<u>Thinopyrum ponticum</u>	<u>40</u>	<u>Y</u>	<u>UPL</u>
<u>Festuca arundinacea</u>	<u>25</u>	<u>Y</u>	<u>FACU</u>
<u>Distichlis spicata</u>	<u>10</u>	<u>N</u>	<u>FAC</u>
<u>Juncus arcticus</u>	<u>5</u>	<u>N</u>	<u>FACW</u>

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 0 (A)  
 Total Number of Dominant Species Across all Strata: 2 (B)  
 Percent of Dominant Species That are OBL, FACW, or FAC: 0.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>5</u>	x 2 = <u>10</u>
FAC species <u>10</u>	x 3 = <u>30</u>
FACU species <u>25</u>	x 4 = <u>100</u>
UPL species <u>40</u>	x 5 = <u>200</u>
Column Totals: <u>80</u> (A)	<u>340</u> (B)

Prevalence Index = B/A = 4.25

### Hydrophytic Vegetation Indicators:

☐ Rapid Test for Hydrophytic Vegetation  
☐ Dominance Test > 50%  
☐ Prevalence Index ≤ 3.0  
☐ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
☐ Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes \_\_\_\_\_ No X

% Bare Ground in Herb Stratum 0 % Cover of Biotic Crust \_\_\_\_\_

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation is not hydrophytic.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix			Redox Features				Texture	Remarks
	Color (moist)		%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 4	10YR	4.0 / 2	100		0			CLAY LOAM	
4 to 18	10YR	2.0 / 1	100		0			SILT LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- ☐ Histosol (A1)  
☐ Histic Epipedon (A2)  
☐ Black Histic (A3)  
☐ Hydrogen Sulfide (A4)  
☐ Stratified Layers (A5) LRR C  
☐ 1 cm Muck (A9) LRR F D  
☐ Depleted Below Dark Surface (A11)  
☐ Thick Dark Surface (A12)  
☐ Sandy Mucky Mineral (S1)  
☐ Sandy Gleyed Matrix (S4)

- ☐ Sandy Redox (S5)  
☐ Stripped Matrix (S6)  
☐ Loamy Mucky Mineral (F1)  
☐ Loamy Gleyed Matrix (F2)  
☐ Depleted Matrix (F3)  
☐ Redox Dark Surface (F6)  
☐ Depleted Dark Surface (F7)  
☐ Redox Depressions (F8)  
☐ Vernal Pools (F9)

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)  
☐ 2 cm Muck (A10) (LRR B)  
☐ Reduced Vertic (F18)  
☐ Red Parent Material (TF2)  
☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No X

## Remarks:

Soil fails to indicate hydric conditions.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)  
☐ High Water Table (A2)  
☐ Saturation (A3)  
☐ Water Marks (B1) (Nonriverine)  
☐ Sediment Deposits (B2) (Nonriverine)  
☐ Drift Deposits (B3) (Nonriverine)  
☐ Surface Soil Cracks (B6)  
☐ Inundation Visible on Aerial Imagery (B7)  
☐ Water-Stained Leaves (B9)  
☐ Salt Crust (B11)  
☐ Biotic Crust (B12)  
☐ Aquatic Fauna (B13)  
☐ Hydrogen Sulfide Odor (C1)  
☐ Oxidized Rhizospheres along Living Roots (C3)  
☐ Presence of Reduced Iron (C4)  
☐ Recent Iron Reduction in Tilled Soils (C6)  
☐ Thin Muck Surface (C7)  
☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)  
☐ Sediment Deposits (B2) (Riverine)  
☐ Drift Deposits (B3) (Riverine)  
☐ Drainage Patterns (B10)  
☐ Dry-Season Water Table (C2)  
☐ Crayfish Burrows (C8)  
☐ Saturation Visible on Aerial Imag.(C9)  
☐ Shallow Aquitard (D3)  
☐ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_  
 Water Table Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_  
 Saturation Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_  
 (includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

No hydrology indicators present.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 6/7/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 5 Sampling Point: 14-N-201206070850  
 Investigators: Donovan Gross Section, Township, Range S 26 T 4 R 2  
 Landform (hillslope, terrace, etc.): Basin Local Relief (concave, convex, none): None Slope(%) 1  
 Subregion (LRR): LRR D Lat: 41.0585587425 Long: -112.040256315 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Ford loam, shallow water table, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> Wetland ID: _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	
Remarks: Sampling point not a wetland.	

## VEGETATION— Use scientific names of plants.

**Absolute % Cover** **Dominant Species** **Indicator Status**

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

<u>Festuca arundinacea</u>	<u>50</u>	<u>Y</u>	<u>FACU</u>
<u>Carex nebrascensis</u>	<u>40</u>	<u>Y</u>	<u>OBL</u>
<u>Eleocharis palustris</u>	<u>5</u>	<u>N</u>	<u>OBL</u>
	<u>95</u>	=Total Cover	

### Vine Stratum

## Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 1 (A)  
 Total Number of Dominant Species Across all Strata: 2 (B)  
 Percent of Dominant Species That are OBL, FACW, or FAC: 50.0% (A/B)

## Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	<u>45</u>	x 1 =	<u>45</u>
FACW species	<u>0</u>	x 2 =	<u>0</u>
FAC species	<u>0</u>	x 3 =	<u>0</u>
FACU species	<u>50</u>	x 4 =	<u>200</u>
UPL species	<u>0</u>	x 5 =	<u>0</u>
Column Totals:	<u>95</u> (A)		<u>245</u> (B)
Prevalence Index = B/A=		<u>2.58</u>	

## Hydrophytic Vegetation Indicators:

☐ Rapid Test for Hydrophytic Vegetation  
☐ Dominance Test > 50%  
☒ Prevalence Index ≤ 3.0  
☐ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
☐ Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No \_\_\_\_\_

% Bare Ground in Herb Stratum 0 % Cover of Biotic Crust \_\_\_\_\_

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation qualifies as hydrophytic by the Prevalence Index.



**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix			Redox Features				Texture	Remarks
	Color (moist)		%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 4	10YR	4.0 / 3	100		0			SILTY CLAY LOAM	
4 to 12	10YR	4.0 / 1	95	Gley1 2/N	1	C	M	SILTY CLAY	
12 to 16	10YR	5.0 / 1	50	10YR 2/1	40	D	M	CLAY	
16 to 18	10YR	6.0 / 2	100		0			CLAY	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)           |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)       |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)   |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)   |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input type="checkbox"/> Depleted Matrix (F3)       |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)     |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)          |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |   |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)  
☐ 2 cm Muck (A10) (LRR B)  
☐ Reduced Vertic (F18)  
☐ Red Parent Material (TF2)  
☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☒ **Restrictive Layer (if observed):**Type: mineralDepth (inches): 18**Hydric Soil Present?** Yes      No X

## Remarks:

No hydric soil indicators, depletion too deep.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)  
☐ Sediment Deposits (B2) (Riverine)  
☐ Drift Deposits (B3) (Riverine)  
☐ Drainage Patterns (B10)  
☐ Dry-Season Water Table (C2)  
☐ Crayfish Burrows (C8)  
☐ Saturation Visible on Aerial Imag.(C9)  
☐ Shallow Aquitard (D3)  
☒ FAC-Neutral Test (D5)

**Field Observations:**Surface Water Present? Yes      No X Depth (inches):     Water Table Present? Yes      No X Depth (inches):     Saturation Present? Yes      No X Depth (inches):     

(includes capillary fringe)

**Wetland Hydrology Present?** Yes      No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

Area lacks sufficient evidence for wetland hydrology.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 6/7/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 5 Sampling Point: 14-N-201206071010  
 Investigators: Donovan Gross Section, Township, Range S 26 T 4 R 2  
 Landform (hillslope, terrace, etc.): Basin Local Relief (concave, convex, none): None Slope(%) 1  
 Subregion (LRR): LRR D Lat: 41.0580224559 Long: -112.040029173 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Ford loam, shallow water table, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> <b>Wetland ID:</b> _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	

Remarks:  
 Point with hydrophytic vegetation but does not have hydric soils or wetland hydrology.

## VEGETATION— Use scientific names of plants.

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
<u>Festuca arundinacea</u>	<u>30</u>	<u>Y</u>	<u>FACU</u>
<u>Juncus arcticus</u>	<u>30</u>	<u>Y</u>	<u>FACW</u>
<u>Carex nebrascensis</u>	<u>25</u>	<u>Y</u>	<u>OBL</u>
<u>Distichlis spicata</u>	<u>10</u>	<u>N</u>	<u>FAC</u>
	<u>95</u>	<u>=Total Cover</u>	

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across all Strata: 3 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 66.7% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	<u>25</u>	x 1 =	<u>25</u>
FACW species	<u>30</u>	x 2 =	<u>60</u>
FAC species	<u>10</u>	x 3 =	<u>30</u>
FACU species	<u>30</u>	x 4 =	<u>120</u>
UPL species	<u>0</u>	x 5 =	<u>0</u>
Column Totals:	<u>95</u> (A)		<u>235</u> (B)

Prevalence Index = B/A= 2.47

### Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
 Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No \_\_\_\_\_

% Bare Ground in Herb Stratum 0 % Cover of Biotic Crust \_\_\_\_\_

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation is hydrophytic.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 4	10YR	4.0/ 2		0			SILTY CLAY LOAM	
4 to 16	10YR	3.0/ 1		0			CLAY LOAM	
16 to 20	10YR	5.0/ 1		0			CLAY	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)           |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)       |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)   |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)   |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input type="checkbox"/> Depleted Matrix (F3)       |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)     |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)          |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |   |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)  
☐ 2 cm Muck (A10) (LRR B)  
☐ Reduced Vertic (F18)  
☐ Red Parent Material (TF2)  
☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☒ **Restrictive Layer (if observed):**

Type: mineral clay  
Depth (inches): 16

**Hydric Soil Present?** Yes      No X

Remarks:  
Soil fails to indicate hydric conditions.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)  
☐ Sediment Deposits (B2) (Riverine)  
☐ Drift Deposits (B3) (Riverine)  
☐ Drainage Patterns (B10)  
☐ Dry-Season Water Table (C2)  
☐ Crayfish Burrows (C8)  
☐ Saturation Visible on Aerial Imag.(C9)  
☐ Shallow Aquitard (D3)  
☒ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present?	Yes <u>    </u> No <u>X</u>	Depth (inches): <u>    </u>
Water Table Present?	Yes <u>    </u> No <u>X</u>	Depth (inches): <u>    </u>
Saturation Present?	Yes <u>    </u> No <u>X</u>	Depth (inches): <u>    </u>

(includes capillary fringe)

**Wetland Hydrology Present?** Yes      No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

Area lacks sufficient evidence for wetland hydrology.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 6/7/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 5 Sampling Point: 14-N-201206071046  
 Investigators: Donovan Gross Section, Township, Range S 26 T 4 R 2  
 Landform (hillslope, terrace, etc.): Basin Local Relief (concave, convex, none): None Slope(%) 1  
 Subregion (LRR): LRR D Lat: 41.0565827249 Long: -112.039015091 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Ford loam, shallow water table, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> <b>Wetland ID:</b> _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	

Remarks:  
 Data point fails to clearly indicate a wetland. Hydrophytic vegetation exists but soils are borderline but fail as hydric and no wetland hydrology was observed.

## VEGETATION— Use scientific names of plants.

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
Eleocharis palustris	30	Y	OBL
Carex nebrascensis	20	Y	OBL
Trifolium fragiferum	20	Y	FACU
Juncus arcticus	10	N	FACW
	80	=Total Cover	

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 2 (A)  
 Total Number of Dominant Species Across all Strata: 3 (B)  
 Percent of Dominant Species That are OBL, FACW, or FAC: 66.7% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>50</u>	x 1 = <u>50</u>
FACW species <u>10</u>	x 2 = <u>20</u>
FAC species <u>0</u>	x 3 = <u>0</u>
FACU species <u>20</u>	x 4 = <u>80</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>80</u> (A)	<u>150</u> (B)

Prevalence Index = B/A = 1.88

### Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
 Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No \_\_\_\_\_

% Bare Ground in Herb Stratum 5 % Cover of Biotic Crust \_\_\_\_\_

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation is hydrophytic.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix			Redox Features				Texture	Remarks
	Color (moist)		%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 4	10YR	4.0/ 2	100		0			SILTY CLAY LOAM	
4 to 12	10YR	3.0/ 1	90	10YR 5/2	10	D	M	CLAY LOAM	
12 to 16	10YR	5.0/ 3	60	10YR 2/1	40	C	M	CLAY LOAM	
16 to 20	10YR	5.0/ 2	100					CLAY	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)           |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)       |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)   |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)   |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input type="checkbox"/> Depleted Matrix (F3)       |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)     |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)          |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |   |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)  
☐ 2 cm Muck (A10) (LRR B)  
☐ Reduced Vertic (F18)  
☐ Red Parent Material (TF2)  
☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**Type: mineral clayDepth (inches): 16**Hydric Soil Present?** Yes      No X

## Remarks:

Very nearly meets hydric indicator F7 but depletions only 5/2 without redox - not sufficient to be depleted.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)  
☐ Sediment Deposits (B2) (Riverine)  
☐ Drift Deposits (B3) (Riverine)  
☐ Drainage Patterns (B10)  
☐ Dry-Season Water Table (C2)  
☐ Crayfish Burrows (C8)  
☐ Saturation Visible on Aerial Imag.(C9)  
☐ Shallow Aquitard (D3)  
☒ FAC-Neutral Test (D5)

**Field Observations:**Surface Water Present? Yes      No X Depth (inches):     Water Table Present? Yes      No X Depth (inches):     Saturation Present? Yes      No X Depth (inches):     

(includes capillary fringe)

**Wetland Hydrology Present?** Yes      No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

Area lacks sufficient evidence for wetland hydrology..



# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 6/7/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 5 Sampling Point: 14-N-201206071150  
 Investigators: Donovan Gross Section, Township, Range S 26 T 4 R 2  
 Landform (hillslope, terrace, etc.): Basin Local Relief (concave, convex, none): None Slope(%) 2  
 Subregion (LRR): LRR D Lat: 41.0567647431 Long: -112.037509535 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Ford loam, shallow water table, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> Wetland ID: _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	

Remarks:  
 Sampling point not a wetland.

## VEGETATION— Use scientific names of plants.

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
<u>Distichlis spicata</u>	<u>30</u>	<u>Y</u>	<u>FAC</u>
<u>Carex nebrascensis</u>	<u>15</u>	<u>Y</u>	<u>OBL</u>
<u>Schoenoplectus pungens</u>	<u>15</u>	<u>Y</u>	<u>OBL</u>
<u>Eleocharis palustris</u>	<u>10</u>	<u>N</u>	<u>OBL</u>
<u>Festuca arundinacea</u>	<u>10</u>	<u>N</u>	<u>FACU</u>
	<u>80</u>	<u>=Total Cover</u>	

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across all Strata: 3 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>40</u>	x 1 = <u>40</u>
FACW species <u>0</u>	x 2 = <u>0</u>
FAC species <u>30</u>	x 3 = <u>90</u>
FACU species <u>10</u>	x 4 = <u>40</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>80</u> (A)	<u>170</u> (B)

Prevalence Index = B/A = 2.13

### Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
 Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No \_\_\_\_\_

% Bare Ground in Herb Stratum 5 % Cover of Biotic Crust

Remarks: (Include photo numbers here or on a separate sheet.)  
 Vegetation is hydrophytic.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)**

Depth (inches)	Matrix			Redox Features				Texture	Remarks
	Color (moist)		%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 7	10YR	3.0 / 2	100		0			SILT LOAM	
7 to 20	10YR	3.0 / 1	100		0			CLAY LOAM	
20 to 24	10YR	5.0 / 2	100		0			CLAY	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)           |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)       |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)   |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)   |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input type="checkbox"/> Depleted Matrix (F3)       |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)     |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)          |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |   |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)  
☐ 2 cm Muck (A10) (LRR B)  
☐ Reduced Vertic (F18)  
☐ Red Parent Material (TF2)  
☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☒ **Restrictive Layer (if observed):**

Type: mineral clay  
Depth (inches): 20

Hydric Soil Present? Yes        No X

## Remarks:

Soil fails to indicate hydric conditions.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)  
☐ Sediment Deposits (B2) (Riverine)  
☐ Drift Deposits (B3) (Riverine)  
☐ Drainage Patterns (B10)  
☐ Dry-Season Water Table (C2)  
☐ Crayfish Burrows (C8)  
☐ Saturation Visible on Aerial Imag.(C9)  
☐ Shallow Aquitard (D3)  
☒ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present?	Yes <u>      </u>	No <u>X</u>	Depth (inches):	<u>      </u>
Water Table Present?	Yes <u>X</u>	No <u>      </u>	Depth (inches):	<u>17</u>
Saturation Present?	Yes <u>X</u>	No <u>      </u>	Depth (inches):	<u>15</u>

(includes capillary fringe)

Wetland Hydrology Present? Yes        No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

No hydrology, saturation too deep.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 6/4/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 5 Sampling Point: 14-W-201206041325  
 Investigators: Mike Perkins Section, Township, Range S 26 T 4 R 2  
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): Concave Slope(%) 2  
 Subregion (LRR): LRR D Lat: 41.0590671624 Long: -112.042657317 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Warm Springs fine sandy loam, saline, sodic, 0 to 1 percent slopes NWI Classification: PEMA  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No        (If No, explain in Remarks)  
 Are Vegetation       , Soil       , Hydrology       , significantly disturbed? Are "Normal Circumstances" present? Yes X No         
 Are Vegetation       , Soil       , Hydrology       , naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No <u>      </u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No <u>      </u> Wetland ID: <u>14-W-95</u>
Hydric Soil Present? Yes <u>X</u> No <u>      </u>	
Wetland Hydrology Present? Yes <u>X</u> No <u>      </u>	

Remarks:  
 Sampling point is a wetland.

## VEGETATION— Use scientific names of plants.

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
Eleocharis palustris	30	Y	OBL
Carex nebrascensis	25	Y	OBL
Distichlis spicata	20	Y	FAC
Typha latifolia	20	Y	OBL
Carex praegracilis	10	N	FACW
Festuca arundinacea	5	N	FACU
Schoenoplectus pungens	5	N	OBL
Cardaria draba	2	N	UPL
	117	=Total Cover	

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across all Strata: 4 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>80</u>	x 1 = <u>80</u>
FACW species <u>10</u>	x 2 = <u>20</u>
FAC species <u>20</u>	x 3 = <u>60</u>
FACU species <u>5</u>	x 4 = <u>20</u>
UPL species <u>2</u>	x 5 = <u>10</u>
Column Totals: <u>117</u> (A)	<u>190</u> (B)

Prevalence Index = B/A = 1.62

### Hydrophytic Vegetation Indicators:

       Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
       Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
       Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No       

% Bare Ground in Herb Stratum 5 % Cover of Biotic Crust

Remarks: (Include photo numbers here or on a separate sheet.)  
 Vegetation is hydrophytic.

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix			Redox Features				Texture	Remarks
	Color (moist)		%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 2	10YR	2.0/ 1	100						organic
2 to 15	10YR	3.0/ 2	90	10YR 6/4	10	C	M	SILTY CLAY LOAM	
15 to 16	10YR	5.0/ 1	100					SILTY CLAY LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.      <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators:**

☐ Histosol (A1)☐ Histic Epipedon (A2)☐ Black Histic (A3)☐ Hydrogen Sulfide (A4)☐ Stratified Layers (A5) LRR C☐ 1 cm Muck (A9) LRR F D☐ Depleted Below Dark Surface (A11)☐ Thick Dark Surface (A12)☐ Sandy Mucky Mineral (S1)☐ Sandy Gleyed Matrix (S4)☐ Sandy Redox (S5)☐ Stripped Matrix (S6)☐ Loamy Mucky Mineral (F1)☐ Loamy Gleyed Matrix (F2)☐ Depleted Matrix (F3)☒ Redox Dark Surface (F6)☐ Depleted Dark Surface (F7)☐ Redox Depressions (F8)☐ Vernal Pools (F9)

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

☐ 1 cm Muck (A9) (LRR C)☐ 2 cm Muck (A10) (LRR B)☐ Reduced Vertic (F18)☐ Red Parent Material (TF2)☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☒ **Restrictive Layer (if observed):**

Type: calcic  
Depth (inches): 15

**Hydric Soil Present?**      Yes X      No

Remarks:  
Soil profile meets F6 indicator.

HYDROLOGY

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

☐ Surface Water (A1)☐ High Water Table (A2)☐ Saturation (A3)☐ Water Marks (B1) (Nonriverine)☐ Sediment Deposits (B2) (Nonriverine)☐ Drift Deposits (B3) (Nonriverine)☐ Surface Soil Cracks (B6)☐ Inundation Visible on Aerial Imagery (B7)☐ Water-Stained Leaves (B9)☐ Salt Crust (B11)☐ Biotic Crust (B12)☐ Aquatic Fauna (B13)☐ Hydrogen Sulfide Odor (C1)☐ Oxidized Rhizospheres along Living Roots (C3)☐ Presence of Reduced Iron (C4)☐ Recent Iron Reduction in Tilled Soils (C6)☐ Thin Muck Surface (C7)☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

☐ Water Marks (B1) (Riverine)☐ Sediment Deposits (B2) (Riverine)☐ Drift Deposits (B3) (Riverine)☐ Drainage Patterns (B10)☐ Dry-Season Water Table (C2)☐ Crayfish Burrows (C8)☒ Saturation Visible on Aerial Imag.(C9)☐ Shallow Aquitard (D3)☒ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present?      Yes             No X      Depth (inches):        —  
Water Table Present?      Yes             No X      Depth (inches):                
Saturation Present?      Yes X      No             Depth (inches):        14  
(includes capillary fringe)

**Wetland Hydrology Present?**      Yes X      No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:  
With review of aerials, inundation of area noted. Hydrology impounded against road/ditch embankment.

US Army Corps of Engineers

HDR

Arid West – Version 2.0

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 6/5/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 5 Sampling Point: 14-W-201206051026  
 Investigators: Donovan Gross Section, Township, Range S 26 T 4 R 2  
 Landform (hillslope, terrace, etc.): Basin Local Relief (concave, convex, none): Concave Slope(%) 2  
 Subregion (LRR): LRR D Lat: 41.0569861022 Long: -112.03632942 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Ford loam, 0 to 1 percent slopes NWI Classification: PEMA

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No        (If No, explain in Remarks)  
 Are Vegetation       , Soil       , Hydrology       , significantly disturbed? Are "Normal Circumstances" present? Yes X No         
 Are Vegetation       , Soil       , Hydrology       , naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No <u>      </u>	Is the Sampled Area within a Wetland? Yes <u>X</u> No <u>      </u>
Hydric Soil Present? Yes <u>X</u> No <u>      </u>	
Wetland Hydrology Present? Yes <u>X</u> No <u>      </u>	Wetland ID: <u>14-W-96</u>

Remarks:  
 Wetland data point, appears to meet all three parameters.

## VEGETATION— Use scientific names of plants.

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
Schoenoplectus pungens	60	Y	OBL
Typha latifolia	15	N	OBL
Distichlis spicata	5	N	FAC
Lactuca serriola	5	N	FACU
	85	=Total Cover	

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 1 (A)  
 Total Number of Dominant Species Across all Strata: 1 (B)  
 Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>75</u>	x 1 = <u>75</u>
FACW species <u>0</u>	x 2 = <u>0</u>
FAC species <u>5</u>	x 3 = <u>15</u>
FACU species <u>5</u>	x 4 = <u>20</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>85</u> (A)	<u>110</u> (B)
Prevalence Index = B/A= <u>1.29</u>	

### Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
 Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

% Bare Ground in Herb Stratum 5 % Cover of Biotic Crust 5

Hydrophytic Vegetation Present? Yes X No       

Remarks: (Include photo numbers here or on a separate sheet.)  
 Vegetation is hydrophytic.



**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)**

Depth (inches)	Matrix			Redox Features				Texture	Remarks
	Color (moist)		%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 6	10YR	2.0/ 2	95	7.5YR 5/6	5	D	M	CLAY LOAM	
6 to 16	10YR	2.0/ 2	95	7.5YR 5/6	5	D	M	CLAY LOAM	
16 to 18	GLE Y 1	2.0/ N	100					CLAY	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)                   |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)               |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)           |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)           |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input type="checkbox"/> Depleted Matrix (F3)               |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input checked="" type="checkbox"/> Redox Dark Surface (F6) |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7)         |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)             |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)                  |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |   |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- |   |
|---|
| <input type="checkbox"/> 1 cm Muck (A9) (LRR C)     |
| <input type="checkbox"/> 2 cm Muck (A10) (LRR B)    |
| <input type="checkbox"/> Reduced Vertic (F18)       |
| <input type="checkbox"/> Red Parent Material (TF2)  |
| <input type="checkbox"/> Other (Explain in Remarks) |

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes X No \_\_\_\_\_Remarks:  
Soil meets hydric indicator F6.**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |   |
|--|---|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)   |
| <input type="checkbox"/> High Water Table (A2)                     | <input checked="" type="checkbox"/> Biotic Crust (B12)                            |
| <input checked="" type="checkbox"/> Saturation (A3)                | <input type="checkbox"/> Aquatic Fauna (B13)                                      |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                               |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input checked="" type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                            |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)               |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                                   |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                               |

Secondary Indicators (minimum of two required)

- |   |
|---|
| <input type="checkbox"/> Water Marks (B1) (Riverine)            |
| <input type="checkbox"/> Sediment Deposits (B2) (Riverine)      |
| <input type="checkbox"/> Drift Deposits (B3) (Riverine)         |
| <input type="checkbox"/> Drainage Patterns (B10)                |
| <input type="checkbox"/> Dry-Season Water Table (C2)            |
| <input type="checkbox"/> Crayfish Burrows (C8)                  |
| <input type="checkbox"/> Saturation Visible on Aerial Imag.(C9) |
| <input type="checkbox"/> Shallow Aquitard (D3)                  |
| <input checked="" type="checkbox"/> FAC-Neutral Test (D5)       |

**Field Observations:**

Surface Water Present?	Yes _____ No <u>X</u>	Depth (inches):	____
Water Table Present?	Yes _____ No <u>X</u>	Depth (inches):	____
Saturation Present?	Yes <u>X</u> No _____	Depth (inches):	10

(includes capillary fringe)

**Wetland Hydrology Present?** Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:  
Wetland hydrology present.

# WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: WDC JWDG-14-W-95-IN City/County: Davis County Sampling Date: 7/20/2016  
 Applicant/Owner: UDOT State: Utah Sampling Point: JWDG-14-W-95  
 Investigator(s): JW/DG Section, Township, Range: 26 4N 2W  
 Landform (hillslope, terrace, etc.): terrace/depression Local relief (concave, convex, none): concave Slope (%): 1-2%  
 Subregion (LRR): D Lat: 41.059415 Long: -112.041745 Datum: D WGS 1983  
 Soil Map Unit Name: Ford loam, shallow water table, 0 to 1 percent slopes NWI classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____	
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	
Remarks:  Sampled area dominated by saltgrass.	

## VEGETATION – Use scientific names of plants.

<b>Tree Stratum</b> (Plot size: _____) 1. _____ 2. _____ 3. _____ 4. _____ _____ = Total Cover <b>Sapling/Shrub Stratum</b> (Plot size: _____) 1. _____ 2. _____ 3. _____ 4. _____ 5. _____ _____ = Total Cover <b>Herb Stratum</b> (Plot size: <u>5 ft. radius</u> ) 1. <u>Distichlis spicata</u> <u>100%</u> <u>Yes</u> <u>FAC</u> 2. <u>Schoenoplectus pungens</u> <u>15%</u> <u></u> <u>OBL</u> 3. <u>Hordeum jubatum</u> <u>2%</u> <u></u> <u>FAC</u> 4. <u>Eleocharis palustris</u> <u>20%</u> <u></u> <u>OBL</u> 5. <u>Polypogon monspeliensis</u> <u>1%</u> <u></u> <u>FACW</u> 6. <u>Epilobium palustre</u> <u>1%</u> <u></u> <u>OBL</u> 7. _____ 8. _____ _____ = Total Cover <b>Woody Vine Stratum</b> (Plot size: _____) 1. _____ 2. _____ _____ = Total Cover % Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B) <b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____ <b>Hydrophytic Vegetation Indicators:</b> <input checked="" type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. <b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No _____
Remarks:  Vegetation passes dominance test.	

## SOIL

Sampling Point: JWDG-14-H

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-6	10YR 3/1	95%	G1 2.5/N	5%			SiClLoam	
6-8	7.5YR 6/3	95%	G1 2.5/N	5%			MF Sand	
8-15	10YR 2/2	100%					ClLoam	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                           | <input type="checkbox"/> Sandy Redox (S5)                   |
| <input type="checkbox"/> Histic Epipedon (A2)                    | <input type="checkbox"/> Stripped Matrix (S6)               |
| <input type="checkbox"/> Black Histic (A3)                       | <input type="checkbox"/> Loamy Mucky Mineral (F1)           |
| <input type="checkbox"/> Hydrogen Sulfide (A4)                   | <input type="checkbox"/> Loamy Gleyed Matrix (F2)           |
| <input type="checkbox"/> Stratified Layers (A5) ( <b>LRR C</b> ) | <input type="checkbox"/> Depleted Matrix (F3)               |
| <input type="checkbox"/> 1 cm Muck (A9) ( <b>LRR D</b> )         | <input checked="" type="checkbox"/> Redox Dark Surface (F6) |
| <input type="checkbox"/> Depleted Below Dark Surface (A11)       | <input type="checkbox"/> Depleted Dark Surface (F7)         |
| <input type="checkbox"/> Thick Dark Surface (A12)                | <input type="checkbox"/> Redox Depressions (F8)             |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)                | <input type="checkbox"/> Vernal Pools (F9)                  |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)                |   |

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- ☐ 1 cm Muck (A9) (**LRR C**)
- ☐ 2 cm Muck (A10) (**LRR B**)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes ☒ No ☐

Remarks:

Soil profile fits Redox Dark Surface (F6) indicator.

## HYDROLOGY

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                            | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                         | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                               | <input checked="" type="checkbox"/> Aquatic Invertebrates (B13)        |
| <input type="checkbox"/> Water Marks (B1) ( <b>Nonriverine</b> )       | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) ( <b>Nonriverine</b> ) | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) ( <b>Nonriverine</b> )    | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                      | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)     | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                     | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) (**Riverine**)
- ☐ Sediment Deposits (B2) (**Riverine**)
- ☐ Drift Deposits (B3) (**Riverine**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☒ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present? Yes ☐ No ☒ Depth (inches): \_\_\_\_\_

Water Table Present? Yes ☐ No ☒ Depth (inches): \_\_\_\_\_

Saturation Present? Yes ☒ No ☐ Depth (inches): 15  
(includes capillary fringe)

**Wetland Hydrology Present?** Yes ☒ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Saturation at 15".

# WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: WDC JWDG-14-W-95-OUT City/County: Davis County Sampling Date: 7/20/2016  
 Applicant/Owner: UDOT State: Utah Sampling Point: JWDG-14-W-95  
 Investigator(s): JW/DG Section, Township, Range: 26 4N 2W  
 Landform (hillslope, terrace, etc.): terrace/depression Local relief (concave, convex, none): concave Slope (%): 1-2%  
 Subregion (LRR): D Lat: 41.05934333 Long: -112.0415467 Datum: D WGS 1983  
 Soil Map Unit Name: Ford loam, shallow water table, 0 to 1 percent slopes NWI classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Hydric Soil Present? Yes _____ No _____	
Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	
Remarks:  Upland vegetation. Didn't sample soils.	

## VEGETATION – Use scientific names of plants.

<b>Tree Stratum</b> (Plot size: _____) 1. _____ 2. _____ 3. _____ 4. _____ _____ = Total Cover <b>Sapling/Shrub Stratum</b> (Plot size: _____) 1. _____ 2. _____ 3. _____ 4. _____ 5. _____ _____ = Total Cover <b>Herb Stratum</b> (Plot size: <u>5 ft. radius</u> ) 1. <u>Schedonorus arundinaceus</u> <u>80%</u> <u>Yes</u> <u>FACU</u> 2. <u>Trifolium fragiferum</u> <u>50%</u> <u>Yes</u> <u>FAC</u> 3. <u>Medicago sativa</u> <u>1%</u> _____ <u>UPL</u> 4. <u>Distichlis spicata</u> <u>5%</u> _____ <u>FAC</u> 5. _____ 6. _____ 7. _____ 8. _____ _____ <u>136%</u> = Total Cover <b>Woody Vine Stratum</b> (Plot size: _____) 1. _____ 2. _____ _____ = Total Cover % Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50%</u> (A/B) <b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species <u>55</u> x 3 = <u>165</u> FACU species <u>80</u> x 4 = <u>320</u> UPL species <u>1</u> x 5 = <u>5</u> Column Totals: <u>136</u> (A) <u>490</u> (B) Prevalence Index = B/A = <u>3.6</u> <b>Hydrophytic Vegetation Indicators:</b> _____ Dominance Test is >50% _____ Prevalence Index is ≤3.0 <sup>1</sup> _____ Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. <b>Hydrophytic Vegetation Present?</b> Yes _____ No <input checked="" type="checkbox"/>
Remarks:  Vegetation fails dominance test.	

## SOIL

Sampling Point: JWDG-14-

[illegible]

## HYDROLOGY

Wetland Hydrology Indicators:		
Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (2 or more required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) ( <b>Riverine</b> )
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) ( <b>Riverine</b> )
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) ( <b>Riverine</b> )
<input type="checkbox"/> Water Marks (B1) ( <b>Nonriverine</b> )	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) ( <b>Nonriverine</b> )	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3) ( <b>Nonriverine</b> )	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present?    Yes <input type="checkbox"/> No <input type="checkbox"/> Depth (inches): _____ Water Table Present?    Yes <input type="checkbox"/> No <input type="checkbox"/> Depth (inches): _____ Saturation Present?    Yes <input type="checkbox"/> No <input type="checkbox"/> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		
Dry site. No indicators observed.		



# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 8/7/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 4 Sampling Point: 12-N-201208071332  
 Investigators: Mike Perkins Nate Nichols Section, Township, Range S 22 T 4 R 2  
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): None Slope(%) 0  
 Subregion (LRR): LRR D Lat: 41.0670491251 Long: -112.058567638 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Ford loam, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes \_\_\_\_\_ No X  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology X, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> <b>Wetland ID:</b> _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	

Remarks:  
 sample point is not a wetland. Slightly above nearby wetland "in" point.

## VEGETATION— Use scientific names of plants.

	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
<u>Tree Stratum</u>			
<u>Shrub Stratum</u>			
<u>Herb Stratum</u> (Plot size: <u>30 Ft</u> )			
<u>Distichlis spicata</u>	<u>35</u>	<u>Y</u>	<u>FAC</u>
<u>Puccinellia nuttalliana</u>	<u>20</u>	<u>Y</u>	<u>FACW</u>
<u>Hordeum jubatum</u>	<u>10</u>	<u>N</u>	<u>FAC</u>
<u>Carex praegracilis</u>	<u>5</u>	<u>N</u>	<u>FACW</u>
<u>Lepidium latifolium</u>	<u>5</u>	<u>N</u>	<u>FAC</u>
	<u>75</u> =Total Cover		
<u>Vine Stratum</u>			

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 2 (A)  
 Total Number of Dominant Species Across all Strata: 2 (B)  
 Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>25</u>	x 2 = <u>50</u>
FAC species <u>50</u>	x 3 = <u>150</u>
FACU species <u>0</u>	x 4 = <u>0</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>75</u> (A)	<u>200</u> (B)

Prevalence Index = B/A= 2.67

### Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
 Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No \_\_\_\_\_

% Bare Ground in Herb Stratum 25 % Cover of Biotic Crust

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation is hydrophytic.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 3	10YR	4.0/ 3					LOAM	
3 to 10	10YR	4.0/ 2	10YR 5/2	10	D	M	SILTY CLAY LOAM	
10 to 16	10YR	4.0/ 3					SILT LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- ☐ Histosol (A1)  
☐ Histic Epipedon (A2)  
☐ Black Histic (A3)  
☐ Hydrogen Sulfide (A4)  
☐ Stratified Layers (A5) LRR C  
☐ 1 cm Muck (A9) LRR F D  
☐ Depleted Below Dark Surface (A11)  
☐ Thick Dark Surface (A12)  
☐ Sandy Mucky Mineral (S1)  
☐ Sandy Gleyed Matrix (S4)

- ☐ Sandy Redox (S5)  
☐ Stripped Matrix (S6)  
☐ Loamy Mucky Mineral (F1)  
☐ Loamy Gleyed Matrix (F2)  
☐ Depleted Matrix (F3)  
☐ Redox Dark Surface (F6)  
☐ Depleted Dark Surface (F7)  
☐ Redox Depressions (F8)  
☐ Vernal Pools (F9)

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)  
☐ 2 cm Muck (A10) (LRR B)  
☐ Reduced Vertic (F18)  
☐ Red Parent Material (TF2)  
☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No X

## Remarks:

No hydric indicators observed in soil profile.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)  
☐ High Water Table (A2)  
☐ Saturation (A3)  
☐ Water Marks (B1) (Nonriverine)  
☐ Sediment Deposits (B2) (Nonriverine)  
☐ Drift Deposits (B3) (Nonriverine)  
☐ Surface Soil Cracks (B6)  
☐ Inundation Visible on Aerial Imagery (B7)  
☐ Water-Stained Leaves (B9)  
☐ Salt Crust (B11)  
☐ Biotic Crust (B12)  
☐ Aquatic Fauna (B13)  
☐ Hydrogen Sulfide Odor (C1)  
☐ Oxidized Rhizospheres along Living Roots (C3)  
☐ Presence of Reduced Iron (C4)  
☐ Recent Iron Reduction in Tilled Soils (C6)  
☐ Thin Muck Surface (C7)  
☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)  
☐ Sediment Deposits (B2) (Riverine)  
☐ Drift Deposits (B3) (Riverine)  
☐ Drainage Patterns (B10)  
☐ Dry-Season Water Table (C2)  
☐ Crayfish Burrows (C8)  
☐ Saturation Visible on Aerial Imag.(C9)  
☐ Shallow Aquitard (D3)  
☒ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_  
Water Table Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_  
Saturation Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_  
(includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

Dry area lacks sufficient evidence for wetland hydrology, although it is the dry time of year.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 8/8/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 4 Sampling Point: 12-N-201208081043  
 Investigators: Mike Perkins Nate Nichols Section, Township, Range S 22 T 4 R 2  
 Landform (hillslope, terrace, etc.): Basin Local Relief (concave, convex, none): Concave Slope(%) 5  
 Subregion (LRR): LRR D Lat: 41.067189312 Long: -112.056870369 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Ford loam, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes \_\_\_\_\_ No X  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology X, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> Wetland ID: _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	
Remarks: Sampling point not a wetland.	

## VEGETATION— Use scientific names of plants.

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
Distichlis spicata	30	Y	FAC
Ambrosia artemisiifolia	25	Y	FACU
Lepidium latifolium	20	Y	FAC
Atriplex micrantha	5	N	UPL
Carex praegracilis	5	N	FACW
Hordeum jubatum	5	N	FAC
Juncus arcticus	5	N	FACW
Lactuca serriola	5	N	FACU
	100	=Total Cover	

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 2 (A)  
 Total Number of Dominant Species Across all Strata: 3 (B)  
 Percent of Dominant Species That are OBL, FACW, or FAC: 66.7% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>10</u>	x 2 = <u>20</u>
FAC species <u>55</u>	x 3 = <u>165</u>
FACU species <u>30</u>	x 4 = <u>120</u>
UPL species <u>5</u>	x 5 = <u>25</u>
Column Totals: <u>100</u> (A)	<u>330</u> (B)

Prevalence Index = B/A = 3.30

### Hydrophytic Vegetation Indicators:

\_\_\_\_ Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
 \_\_\_\_ Prevalence Index ≤ 3.0  
 \_\_\_\_ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 \_\_\_\_ Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No \_\_\_\_\_

% Bare Ground in Herb Stratum 0 % Cover of Biotic Crust \_\_\_\_\_

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation qualifies as hydrophytic by Dominance Test.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix			Redox Features				Texture	Remarks
	Color (moist)		%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 3	10YR	4.0/ 3	100					LOAM	
3 to 8	10YR	5.0/ 2	100					SANDY CLAY LOAM	
8 to 14	10YR	4.0/ 1	70	10YR 7/2	30	D	M	SILTY CLAY	
14 to 18	10YR	7.0/ 2	100					SILTY CLAY	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)           |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)       |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)   |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)   |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input type="checkbox"/> Depleted Matrix (F3)       |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)     |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)          |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |   |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- |   |
|---|
| <input type="checkbox"/> 1 cm Muck (A9) (LRR C)     |
| <input type="checkbox"/> 2 cm Muck (A10) (LRR B)    |
| <input type="checkbox"/> Reduced Vertic (F18)       |
| <input type="checkbox"/> Red Parent Material (TF2)  |
| <input type="checkbox"/> Other (Explain in Remarks) |

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No X

## Remarks:

Soil does not meet any hydric indicator, but some depletions were observed in the 8-14 in layer.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- |   |
|---|
| <input type="checkbox"/> Water Marks (B1) (Riverine)            |
| <input type="checkbox"/> Sediment Deposits (B2) (Riverine)      |
| <input type="checkbox"/> Drift Deposits (B3) (Riverine)         |
| <input type="checkbox"/> Drainage Patterns (B10)                |
| <input type="checkbox"/> Dry-Season Water Table (C2)            |
| <input type="checkbox"/> Crayfish Burrows (C8)                  |
| <input type="checkbox"/> Saturation Visible on Aerial Imag.(C9) |
| <input type="checkbox"/> Shallow Aquitard (D3)                  |
| <input type="checkbox"/> FAC-Neutral Test (D5)                  |

**Field Observations:**Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Water Table Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Saturation Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_

(includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

Dry lacks evidence for wetland hydrology, but during dry time of year.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 8/8/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 4 Sampling Point: 12-N-201208081107  
 Investigators: Mike Perkins Nate Nichols Section, Township, Range S 22 T 4 R 2  
 Landform (hillslope, terrace, etc.): Basin Local Relief (concave, convex, none): Concave Slope(%) 5  
 Subregion (LRR): LRR D Lat: 41.0666171979 Long: -112.056563672 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Warm Springs fine sandy loam, saline, sodic, 0 to 1 percent slopes, chann NWI Classification: \_\_\_\_\_  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes \_\_\_\_\_ No X  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology X, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> <b>Wetland ID:</b> _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	
Remarks: Sampling point not a wetland.	

## VEGETATION— Use scientific names of plants.

<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
<u>Tree Stratum</u>		
<u>Shrub Stratum</u>		
<u>Herb Stratum</u> (Plot size: <u>30 Ft</u> )		
<u>Juncus arcticus</u>	<u>40</u>	<u>Y</u> <u>FACW</u>
<u>Ambrosia artemisiifolia</u>	<u>10</u>	<u>Y</u> <u>FACU</u>
<u>Carex praegracilis</u>	<u>10</u>	<u>Y</u> <u>FACW</u>
<u>Dipsacus fullonum</u>	<u>10</u>	<u>Y</u> <u>FAC</u>
<u>Hordeum jubatum</u>	<u>10</u>	<u>Y</u> <u>FAC</u>
<u>Lepidium latifolium</u>	<u>10</u>	<u>Y</u> <u>FAC</u>
<u>Thinopyrum intermedium</u>	<u>10</u>	<u>Y</u> <u>UPL</u>
<u>100</u>	<u>=Total Cover</u>	

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 5 (A)  
 Total Number of Dominant Species Across all Strata: 7 (B)  
 Percent of Dominant Species That are OBL, FACW, or FAC: 71.4% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>50</u>	x 2 = <u>100</u>
FAC species <u>30</u>	x 3 = <u>90</u>
FACU species <u>10</u>	x 4 = <u>40</u>
UPL species <u>10</u>	x 5 = <u>50</u>
Column Totals: <u>100</u> (A)	<u>280</u> (B)
Prevalence Index = B/A= <u>2.80</u>	

### Hydrophytic Vegetation Indicators:

   Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
   Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
   Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No \_\_\_\_\_

% Bare Ground in Herb Stratum 0 % Cover of Biotic Crust \_\_\_\_\_

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation is hydrophytic.



**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix			Redox Features				Texture	Remarks
	Color (moist)		%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 1	10YR	5.0/ 2	100					LOAM	
1 to 5	10YR	4.0/ 2	70	10YR 7/2	30	D	M	SILTY CLAY LOAM	
5 to 7	10YR	3.0/ 3	100					SILT LOAM	
7 to 19	10YR	4.0/ 1	95	10YR 8/1	5	D	M	SILTY CLAY	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- ☐ Histosol (A1)  
☐ Histic Epipedon (A2)  
☐ Black Histic (A3)  
☐ Hydrogen Sulfide (A4)  
☐ Stratified Layers (A5) LRR C  
☐ 1 cm Muck (A9) LRR F D  
☐ Depleted Below Dark Surface (A11)  
☐ Thick Dark Surface (A12)  
☐ Sandy Mucky Mineral (S1)  
☐ Sandy Gleyed Matrix (S4)  
☐ Sandy Redox (S5)  
☐ Stripped Matrix (S6)  
☐ Loamy Mucky Mineral (F1)  
☐ Loamy Gleyed Matrix (F2)  
☐ Depleted Matrix (F3)  
☐ Redox Dark Surface (F6)  
☐ Depleted Dark Surface (F7)  
☐ Redox Depressions (F8)  
☐ Vernal Pools (F9)

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)  
☐ 2 cm Muck (A10) (LRR B)  
☐ Reduced Vertic (F18)  
☐ Red Parent Material (TF2)  
☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No X**Remarks:**

Soil does not meet any hydric indicator, but some depletions were observed in the upper layer.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)  
☐ High Water Table (A2)  
☐ Saturation (A3)  
☐ Water Marks (B1) (Nonriverine)  
☐ Sediment Deposits (B2) (Nonriverine)  
☐ Drift Deposits (B3) (Nonriverine)  
☐ Surface Soil Cracks (B6)  
☐ Inundation Visible on Aerial Imagery (B7)  
☐ Water-Stained Leaves (B9)  
☐ Salt Crust (B11)  
☐ Biotic Crust (B12)  
☐ Aquatic Fauna (B13)  
☐ Hydrogen Sulfide Odor (C1)  
☐ Oxidized Rhizospheres along Living Roots (C3)  
☐ Presence of Reduced Iron (C4)  
☐ Recent Iron Reduction in Tilled Soils (C6)  
☐ Thin Muck Surface (C7)  
☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)  
☐ Sediment Deposits (B2) (Riverine)  
☐ Drift Deposits (B3) (Riverine)  
☐ Drainage Patterns (B10)  
☐ Dry-Season Water Table (C2)  
☐ Crayfish Burrows (C8)  
☐ Saturation Visible on Aerial Imag. (C9)  
☐ Shallow Aquitard (D3)  
☐ FAC-Neutral Test (D5)

**Field Observations:**Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Water Table Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Saturation Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_

(includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

**Remarks:**

Dry area lacks evidence for wetland hydrology, but during dry time of year.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 8/8/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 4 Sampling Point: 12-N-201208081148  
 Investigators: Mike Perkins Nate Nichols Section, Township, Range S 22 T 4 R 2  
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): None Slope(%) 0  
 Subregion (LRR): LRR D Lat: 41.0661400361 Long: -112.05779375 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Warm Springs fine sandy loam, saline, sodic, 0 to 1 percent slopes, chann NWI Classification: \_\_\_\_\_  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes \_\_\_\_\_ No X  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology X, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> <b>Wetland ID:</b> _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks:  
 Sample point is a not a wetland.

## VEGETATION— Use scientific names of plants.

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
<u>Distichlis spicata</u>	<u>25</u>	<u>Y</u>	<u>FAC</u>
<u>Juncus arcticus</u>	<u>20</u>	<u>Y</u>	<u>FACW</u>
<u>Lepidium latifolium</u>	<u>20</u>	<u>Y</u>	<u>FAC</u>
<u>Hordeum jubatum</u>	<u>15</u>	<u>N</u>	<u>FAC</u>
<u>Puccinellia nuttalliana</u>	<u>15</u>	<u>N</u>	<u>FACW</u>
	<u>95</u>	<u>=Total Cover</u>	

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 3 (A)  
 Total Number of Dominant Species Across all Strata: 3 (B)  
 Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>35</u>	x 2 = <u>70</u>
FAC species <u>60</u>	x 3 = <u>180</u>
FACU species <u>0</u>	x 4 = <u>0</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>95</u> (A)	<u>250</u> (B)
Prevalence Index = B/A= <u>2.63</u>	

### Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
 Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No \_\_\_\_\_

% Bare Ground in Herb Stratum 20 % Cover of Biotic Crust

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation is hydrophytic.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 1	7.5YR 3.0/ 2	100					LOAM	
1 to 3	10YR 3.0/ 3	100					SILTY CLAY LOAM	
3 to 18	10YR 3.0/ 4	95	10YR 7/2	5	D	M	SILTY CLAY LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)           |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)       |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)   |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)   |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input type="checkbox"/> Depleted Matrix (F3)       |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)     |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)          |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |   |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- |   |
|---|
| <input type="checkbox"/> 1 cm Muck (A9) (LRR C)     |
| <input type="checkbox"/> 2 cm Muck (A10) (LRR B)    |
| <input type="checkbox"/> Reduced Vertic (F18)       |
| <input type="checkbox"/> Red Parent Material (TF2)  |
| <input type="checkbox"/> Other (Explain in Remarks) |

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No X

## Remarks:

No hydric indicators observed in soil profile.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                           | <input checked="" type="checkbox"/> Aquatic Fauna (B13)                |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- |   |
|---|
| <input type="checkbox"/> Water Marks (B1) (Riverine)            |
| <input type="checkbox"/> Sediment Deposits (B2) (Riverine)      |
| <input type="checkbox"/> Drift Deposits (B3) (Riverine)         |
| <input type="checkbox"/> Drainage Patterns (B10)                |
| <input type="checkbox"/> Dry-Season Water Table (C2)            |
| <input type="checkbox"/> Crayfish Burrows (C8)                  |
| <input type="checkbox"/> Saturation Visible on Aerial Imag.(C9) |
| <input type="checkbox"/> Shallow Aquitard (D3)                  |
| <input checked="" type="checkbox"/> FAC-Neutral Test (D5)       |

**Field Observations:**

Surface Water Present?	Yes _____ No <u>X</u>	Depth (inches): _____
Water Table Present?	Yes _____ No <u>X</u>	Depth (inches): _____
Saturation Present?	Yes _____ No <u>X</u>	Depth (inches): _____

(includes capillary fringe)

**Wetland Hydrology Present?** Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

Sampling point meets criteria for wetland hydrology.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 8/8/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 4 Sampling Point: 12-N-201208081205  
 Investigators: Mike Perkins Nate Nichols Section, Township, Range S 22 T 4 R 2  
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): None Slope(%) 0  
 Subregion (LRR): LRR D Lat: 41.0667953177 Long: -112.05735598 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Warm Springs fine sandy loam, saline, sodic, 0 to 1 percent slopes, chann NWI Classification: \_\_\_\_\_  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes \_\_\_\_\_ No X  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology X, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> Wetland ID: _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	

Remarks:  
 Sample point suggests area is a not a wetland.

## VEGETATION— Use scientific names of plants.

	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
<u>Tree Stratum</u>			
<u>Shrub Stratum</u>			
<u>Herb Stratum</u> (Plot size: <u>30 Ft</u> )			
Carex praegracilis	30	Y	FACW
Juncus arcticus	25	Y	FACW
Distichlis spicata	20	Y	FAC
Ambrosia artemisiifolia	10	N	FACU
Atriplex micrantha	5	N	UPL
Hordeum jubatum	5	N	FAC
Lepidium latifolium	5	N	FAC
	100 =Total Cover		
<u>Vine Stratum</u>			

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 3 (A)  
 Total Number of Dominant Species Across all Strata: 3 (B)  
 Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>55</u>	x 2 = <u>110</u>
FAC species <u>30</u>	x 3 = <u>90</u>
FACU species <u>10</u>	x 4 = <u>40</u>
UPL species <u>5</u>	x 5 = <u>25</u>
Column Totals: <u>100</u> (A)	<u>265</u> (B)
Prevalence Index = B/A= <u>2.65</u>	

### Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
 Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No \_\_\_\_\_

% Bare Ground in Herb Stratum 5 % Cover of Biotic Crust

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation is hydrophytic.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 2	10YR	3.0/ 3					LOAM	
2 to 12	10YR	3.0/ 4	10YR 6/3	10	C	M	SILTY CLAY LOAM	
12 to 18	10YR	7.0/ 3					SILTY CLAY	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)           |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)       |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)   |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)   |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input type="checkbox"/> Depleted Matrix (F3)       |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)     |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)          |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |   |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- |   |
|---|
| <input type="checkbox"/> 1 cm Muck (A9) (LRR C)     |
| <input type="checkbox"/> 2 cm Muck (A10) (LRR B)    |
| <input type="checkbox"/> Reduced Vertic (F18)       |
| <input type="checkbox"/> Red Parent Material (TF2)  |
| <input type="checkbox"/> Other (Explain in Remarks) |

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No X

## Remarks:

No hydric indicators observed in soil profile.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- |   |
|---|
| <input type="checkbox"/> Water Marks (B1) (Riverine)            |
| <input type="checkbox"/> Sediment Deposits (B2) (Riverine)      |
| <input type="checkbox"/> Drift Deposits (B3) (Riverine)         |
| <input type="checkbox"/> Drainage Patterns (B10)                |
| <input type="checkbox"/> Dry-Season Water Table (C2)            |
| <input type="checkbox"/> Crayfish Burrows (C8)                  |
| <input type="checkbox"/> Saturation Visible on Aerial Imag.(C9) |
| <input type="checkbox"/> Shallow Aquitard (D3)                  |
| <input checked="" type="checkbox"/> FAC-Neutral Test (D5)       |

**Field Observations:**

Surface Water Present?	Yes _____ No <u>X</u>	Depth (inches): _____
Water Table Present?	Yes _____ No <u>X</u>	Depth (inches): _____
Saturation Present?	Yes _____ No <u>X</u>	Depth (inches): _____

(includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

Dry area lacks sufficient evidence for wetland hydrology, although it is the dry time of year.



# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 8/8/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 4 Sampling Point: 12-N-201208081248  
 Investigators: Mike Perkins Nate Nichols Section, Township, Range S 22 T 4 R 2  
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): Concave Slope(%) 1  
 Subregion (LRR): LRR D Lat: 41.0670975322 Long: -112.062740342 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Lakeshore fine sandy loam, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes \_\_\_\_\_ No X  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology X, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> <b>Wetland ID:</b> _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	

Remarks:  
 Sample point suggests area is a not a wetland.

## VEGETATION— Use scientific names of plants.

	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
<u>Tree Stratum</u>			
<u>Shrub Stratum</u>			
<u>Herb Stratum</u> (Plot size: <u>30 Ft</u> )			
<u>Distichlis spicata</u>	<u>40</u>	<u>Y</u>	<u>FAC</u>
<u>Lepidium latifolium</u>	<u>30</u>	<u>Y</u>	<u>FAC</u>
<u>Hordeum pusillum</u>	<u>10</u>	<u>N</u>	<u>FACU</u>
<u>Bromus japonicus</u>	<u>5</u>	<u>N</u>	<u>UPL</u>
<u>Bromus tectorum</u>	<u>5</u>	<u>N</u>	<u>FAC</u>
	<u>90</u>	<u>=Total Cover</u>	

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 2 (A)  
 Total Number of Dominant Species Across all Strata: 2 (B)  
 Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>0</u>	x 2 = <u>0</u>
FAC species <u>75</u>	x 3 = <u>225</u>
FACU species <u>10</u>	x 4 = <u>40</u>
UPL species <u>5</u>	x 5 = <u>25</u>
Column Totals: <u>90</u> (A)	<u>290</u> (B)

Prevalence Index = B/A = 3.22

### Hydrophytic Vegetation Indicators:

   Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
   Prevalence Index ≤ 3.0  
   Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
   Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No \_\_\_\_\_

% Bare Ground in Herb Stratum 5 % Cover of Biotic Crust \_\_\_\_\_

Remarks: (Include photo numbers here or on a separate sheet.)  
 Facultative-dominant vegetation qualifies as hydrophytic by the Dominance Test.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 1	10YR	3.0 / 3	100				LOAM	
1 to 11	10YR	4.0 / 3	100				SANDY LOAM	
11 to 16	10YR	5.0 / 4	65	10YR 3/3	30	C	M	SAND

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- ☐ Histosol (A1)  
☐ Histic Epipedon (A2)  
☐ Black Histic (A3)  
☐ Hydrogen Sulfide (A4)  
☐ Stratified Layers (A5) LRR C  
☐ 1 cm Muck (A9) LRR F D  
☐ Depleted Below Dark Surface (A11)  
☐ Thick Dark Surface (A12)  
☐ Sandy Mucky Mineral (S1)  
☐ Sandy Gleyed Matrix (S4)

- ☐ Sandy Redox (S5)  
☐ Stripped Matrix (S6)  
☐ Loamy Mucky Mineral (F1)  
☐ Loamy Gleyed Matrix (F2)  
☐ Depleted Matrix (F3)  
☐ Redox Dark Surface (F6)  
☐ Depleted Dark Surface (F7)  
☐ Redox Depressions (F8)  
☐ Vernal Pools (F9)

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)  
☐ 2 cm Muck (A10) (LRR B)  
☐ Reduced Vertic (F18)  
☐ Red Parent Material (TF2)  
☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No X

## Remarks:

No hydric indicators observed in soil profile.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)  
☐ High Water Table (A2)  
☐ Saturation (A3)  
☐ Water Marks (B1) (Nonriverine)  
☐ Sediment Deposits (B2) (Nonriverine)  
☐ Drift Deposits (B3) (Nonriverine)  
☐ Surface Soil Cracks (B6)  
☐ Inundation Visible on Aerial Imagery (B7)  
☐ Water-Stained Leaves (B9)  
☐ Salt Crust (B11)  
☐ Biotic Crust (B12)  
☐ Aquatic Fauna (B13)  
☐ Hydrogen Sulfide Odor (C1)  
☐ Oxidized Rhizospheres along Living Roots (C3)  
☐ Presence of Reduced Iron (C4)  
☐ Recent Iron Reduction in Tilled Soils (C6)  
☐ Thin Muck Surface (C7)  
☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)  
☐ Sediment Deposits (B2) (Riverine)  
☐ Drift Deposits (B3) (Riverine)  
☐ Drainage Patterns (B10)  
☐ Dry-Season Water Table (C2)  
☐ Crayfish Burrows (C8)  
☐ Saturation Visible on Aerial Imag.(C9)  
☐ Shallow Aquitard (D3)  
☐ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_  
Water Table Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_  
Saturation Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_  
(includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

No hydrology indicators, although it is the dry time of year.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 8/9/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 4 Sampling Point: 12-N-201208090957  
 Investigators: Mike Perkins Nate Nichols Section, Township, Range S 22 T 4 R 2  
 Landform (hillslope, terrace, etc.): Basin Local Relief (concave, convex, none): Concave Slope(%) 5  
 Subregion (LRR): LRR D Lat: 41.0659298081 Long: -112.060240898 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Ford loam, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes \_\_\_\_\_ No X  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology X, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> Wetland ID: _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	

Remarks:  
 Sampling point not a wetland.

## VEGETATION— Use scientific names of plants.

	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
<u>Tree Stratum</u>			
<u>Shrub Stratum</u>			
<u>Herb Stratum</u> (Plot size: <u>30 Ft</u> )			
<u>Eleocharis palustris</u>	<u>40</u>	<u>Y</u>	<u>OBL</u>
<u>Lepidium latifolium</u>	<u>40</u>	<u>Y</u>	<u>FAC</u>
<u>Hordeum jubatum</u>	<u>10</u>	<u>N</u>	<u>FAC</u>
<u>Ambrosia artemisiifolia</u>	<u>5</u>	<u>N</u>	<u>FACU</u>
<u>Rumex crispus</u>	<u>5</u>	<u>N</u>	<u>FAC</u>
	<u>100</u>	<u>=Total Cover</u>	

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 2 (A)  
 Total Number of Dominant Species Across all Strata: 2 (B)  
 Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>40</u>	x 1 = <u>40</u>
FACW species <u>0</u>	x 2 = <u>0</u>
FAC species <u>55</u>	x 3 = <u>165</u>
FACU species <u>5</u>	x 4 = <u>20</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>100</u> (A)	<u>225</u> (B)
Prevalence Index = B/A= <u>2.25</u>	

### Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
 Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No \_\_\_\_\_

% Bare Ground in Herb Stratum 0 % Cover of Biotic Crust \_\_\_\_\_

Remarks: (Include photo numbers here or on a separate sheet.)  
 Vegetation is hydrophytic.

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix			Redox Features				Texture	Remarks
	Color (moist)		%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 2	10YR	4.0/ 3	100					SANDY LOAM	
2 to 10	2.5YR	4.0/ 3	100					SANDY LOAM	
10 to 19	10YR	6.0/ 3	70	10YR 5/1	30	D	M	SILT LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.      <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators:**

☐ Histosol (A1)☐ Histic Epipedon (A2)☐ Black Histic (A3)☐ Hydrogen Sulfide (A4)☐ Stratified Layers (A5) LRR C☐ 1 cm Muck (A9) LRR F D☐ Depleted Below Dark Surface (A11)☐ Thick Dark Surface (A12)☐ Sandy Mucky Mineral (S1)☐ Sandy Gleyed Matrix (S4)☐ Sandy Redox (S5)☐ Stripped Matrix (S6)☐ Loamy Mucky Mineral (F1)☐ Loamy Gleyed Matrix (F2)☐ Depleted Matrix (F3)☐ Redox Dark Surface (F6)☐ Depleted Dark Surface (F7)☐ Redox Depressions (F8)☐ Vernal Pools (F9)

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

☐ 1 cm Muck (A9) (LRR C)☐ 2 cm Muck (A10) (LRR B)☐ Reduced Vertic (F18)☐ Red Parent Material (TF2)☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_  
Depth (inches): \_\_\_\_\_

**Hydric Soil Present?**      Yes \_\_\_\_\_ No X

Remarks:  
Soil does not meet any hydric indicators.

HYDROLOGY

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

☐ Surface Water (A1)☐ High Water Table (A2)☐ Saturation (A3)☐ Water Marks (B1) (Nonriverine)☐ Sediment Deposits (B2) (Nonriverine)☐ Drift Deposits (B3) (Nonriverine)☐ Surface Soil Cracks (B6)☐ Inundation Visible on Aerial Imagery (B7)☐ Water-Stained Leaves (B9)☐ Salt Crust (B11)☐ Biotic Crust (B12)☐ Aquatic Fauna (B13)☐ Hydrogen Sulfide Odor (C1)☐ Oxidized Rhizospheres along Living Roots (C3)☐ Presence of Reduced Iron (C4)☐ Recent Iron Reduction in Tilled Soils (C6)☐ Thin Muck Surface (C7)☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

☐ Water Marks (B1) (Riverine)☐ Sediment Deposits (B2) (Riverine)☐ Drift Deposits (B3) (Riverine)☐ Drainage Patterns (B10)☐ Dry-Season Water Table (C2)☐ Crayfish Burrows (C8)☐ Saturation Visible on Aerial Imag.(C9)☐ Shallow Aquitard (D3)☒ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present?      Yes \_\_\_\_\_ No X      Depth (inches): \_\_\_\_\_  
Water Table Present?      Yes \_\_\_\_\_ No X      Depth (inches): \_\_\_\_\_  
Saturation Present?      Yes \_\_\_\_\_ No X      Depth (inches): \_\_\_\_\_  
(includes capillary fringe)

**Wetland Hydrology Present?**      Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:  
Dry area lacks evidence for wetland hydrology, but during dry time of year.

US Army Corps of Engineers

HDR

Arid West – Version 2.0

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 8/9/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 4 Sampling Point: 12-N-201208091019  
 Investigators: Mike Perkins Nate Nichols Section, Township, Range S 22 T 4 R 2  
 Landform (hillslope, terrace, etc.): Basin Local Relief (concave, convex, none): Concave Slope(%) 5  
 Subregion (LRR): LRR D Lat: 41.0667665146 Long: -112.061050724 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Ford loam, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes \_\_\_\_\_ No X  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology X, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> <b>Wetland ID:</b> _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks:  
 Sampling point not a wetland. \*Revisited 4/25/13 with NO hydrology noted, Sat @ 17". Above noted soil cracks noted during dry season, may be unrelated to present hydrology.\*

## VEGETATION— Use scientific names of plants.

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
<u>Suaeda occidentalis</u>	<u>30</u>	<u>Y</u>	<u>FACW</u>
<u>Distichlis spicata</u>	<u>15</u>	<u>Y</u>	<u>FAC</u>
<u>Puccinellia nuttalliana</u>	<u>15</u>	<u>Y</u>	<u>FACW</u>
<u>Atriplex hillmanii</u>	<u>5</u>	<u>N</u>	<u>FACU</u>
<u>Hordeum pusillum</u>	<u>5</u>	<u>N</u>	<u>FACU</u>
	<u>70</u>	<u>=Total Cover</u>	

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across all Strata: 3 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>45</u>	x 2 = <u>90</u>
FAC species <u>15</u>	x 3 = <u>45</u>
FACU species <u>10</u>	x 4 = <u>40</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>70</u> (A)	<u>175</u> (B)

Prevalence Index = B/A = 2.50

### Hydrophytic Vegetation Indicators:

   Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
   Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
   Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No \_\_\_\_\_

% Bare Ground in Herb Stratum 30 % Cover of Biotic Crust \_\_\_\_\_

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation is hydrophytic.



**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 2	10YR	4.0/ 2	100				SILTY CLAY LOAM	
2 to 10	10YR	3.0/ 3	100				SILTY CLAY	
10 to 14	7.5YR	4.0/ 3	100				SILTY CLAY	
14 to 18	5YR	6.0/ 4	100				CLAY	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)           |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)       |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)   |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)   |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input type="checkbox"/> Depleted Matrix (F3)       |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)     |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)          |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |   |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- |   |
|---|
| <input type="checkbox"/> 1 cm Muck (A9) (LRR C)     |
| <input type="checkbox"/> 2 cm Muck (A10) (LRR B)    |
| <input type="checkbox"/> Reduced Vertic (F18)       |
| <input type="checkbox"/> Red Parent Material (TF2)  |
| <input type="checkbox"/> Other (Explain in Remarks) |

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No X

## Remarks:

Soil does not meet any hydric indicators.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input checked="" type="checkbox"/> Surface Soil Cracks (B6)       | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- |   |
|---|
| <input type="checkbox"/> Water Marks (B1) (Riverine)            |
| <input type="checkbox"/> Sediment Deposits (B2) (Riverine)      |
| <input type="checkbox"/> Drift Deposits (B3) (Riverine)         |
| <input type="checkbox"/> Drainage Patterns (B10)                |
| <input type="checkbox"/> Dry-Season Water Table (C2)            |
| <input type="checkbox"/> Crayfish Burrows (C8)                  |
| <input type="checkbox"/> Saturation Visible on Aerial Imag.(C9) |
| <input type="checkbox"/> Shallow Aquitard (D3)                  |
| <input checked="" type="checkbox"/> FAC-Neutral Test (D5)       |

**Field Observations:**

Surface Water Present?	Yes _____ No <u>X</u>	Depth (inches):	____
Water Table Present?	Yes _____ No <u>X</u>	Depth (inches):	____
Saturation Present?	Yes _____ No <u>X</u>	Depth (inches):	____

(includes capillary fringe)

**Wetland Hydrology Present?** Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

Prominent surface soil cracks suggest ponding. \*Revisited during wet time of year, (4/25/13) no soil cracks present, may have been associated with snowmelt and alkaline conditions\*

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 8/9/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 4 Sampling Point: 12-N-201208091331  
 Investigators: Mike Perkins Nate Nichols Section, Township, Range S 22 T 4 R 2  
 Landform (hillslope, terrace, etc.): Basin Local Relief (concave, convex, none): Concave Slope(%) 2  
 Subregion (LRR): LRR D Lat: 41.0659300595 Long: -112.061111892 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Warm Springs fine sandy loam, saline, sodic, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes \_\_\_\_\_ No X  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology X, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> <b>Wetland ID:</b> _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks:  
 Sample point suggests lowest depression in this channel feature is not a wetland.

## VEGETATION— Use scientific names of plants.

	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
<u>Tree Stratum</u>			
<u>Shrub Stratum</u>			
<u>Herb Stratum</u> (Plot size: <u>30 Ft</u> )			
<u>Eleocharis palustris</u>	<u>15</u>	<u>Y</u>	<u>OBL</u>
<u>Polypogon monspeliensis</u>	<u>15</u>	<u>Y</u>	<u>FACW</u>
<u>Lepidium latifolium</u>	<u>5</u>	<u>N</u>	<u>FAC</u>
<u>Schoenoplectus pungens</u>	<u>5</u>	<u>N</u>	<u>OBL</u>
	<u>40</u>	<u>=Total Cover</u>	
<u>Vine Stratum</u>			

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 2 (A)  
 Total Number of Dominant Species Across all Strata: 2 (B)  
 Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>20</u>	x 1 = <u>20</u>
FACW species <u>15</u>	x 2 = <u>30</u>
FAC species <u>5</u>	x 3 = <u>15</u>
FACU species <u>0</u>	x 4 = <u>0</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>40</u> (A)	<u>65</u> (B)
Prevalence Index = B/A= <u>1.63</u>	

### Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
 Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No \_\_\_\_\_

% Bare Ground in Herb Stratum 50 % Cover of Biotic Crust

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation is hydrophytic.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 5	10YR	4.0 / 3					SILT LOAM	
5 to 14	10YR	6.0 / 3	10YR 4/2	35		M	SILTY CLAY LOAM	
14 to 18	7.5YR	4.0 / 3					SILTY CLAY LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)           |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)       |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)   |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)   |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input type="checkbox"/> Depleted Matrix (F3)       |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)     |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)          |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |   |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- |   |
|---|
| <input type="checkbox"/> 1 cm Muck (A9) (LRR C)     |
| <input type="checkbox"/> 2 cm Muck (A10) (LRR B)    |
| <input type="checkbox"/> Reduced Vertic (F18)       |
| <input type="checkbox"/> Red Parent Material (TF2)  |
| <input type="checkbox"/> Other (Explain in Remarks) |

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No X

## Remarks:

Soil does not meet any hydric indicator.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input checked="" type="checkbox"/> Surface Soil Cracks (B6)       | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- |   |
|---|
| <input type="checkbox"/> Water Marks (B1) (Riverine)            |
| <input type="checkbox"/> Sediment Deposits (B2) (Riverine)      |
| <input type="checkbox"/> Drift Deposits (B3) (Riverine)         |
| <input type="checkbox"/> Drainage Patterns (B10)                |
| <input type="checkbox"/> Dry-Season Water Table (C2)            |
| <input type="checkbox"/> Crayfish Burrows (C8)                  |
| <input type="checkbox"/> Saturation Visible on Aerial Imag.(C9) |
| <input type="checkbox"/> Shallow Aquitard (D3)                  |
| <input checked="" type="checkbox"/> FAC-Neutral Test (D5)       |

**Field Observations:**

Surface Water Present?	Yes _____ No <u>X</u>	Depth (inches): _____
Water Table Present?	Yes _____ No <u>X</u>	Depth (inches): _____
Saturation Present?	Yes _____ No <u>X</u>	Depth (inches): _____

(includes capillary fringe)

**Wetland Hydrology Present?** Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

Prominent surface soil cracks. Area currently dry but during dry time of year for a seasonal wetland.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 8/6/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 4 Sampling Point: 12-W-201208061430  
 Investigators: Mike Perkins Nate Nichols Section, Township, Range S 22 T 4 R 2  
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): Concave Slope(%) 1  
 Subregion (LRR): LRR D Lat: 41.067141569 Long: -112.058573765 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Ford loam, 0 to 1 percent slopes NWI Classification: PEMC  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No        (If No, explain in Remarks)  
 Are Vegetation       , Soil       , Hydrology       , significantly disturbed? Are "Normal Circumstances" present? Yes        No X  
 Are Vegetation       , Soil       , Hydrology X, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No <u>      </u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No <u>      </u> Wetland ID: <u>12-IW-32</u>
Hydric Soil Present? Yes <u>X</u> No <u>      </u>	
Wetland Hydrology Present? Yes <u>X</u> No <u>      </u>	

Remarks:  
 All three parameters suggest this data point indicates a wetland.

## VEGETATION— Use scientific names of plants.

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
Puccinellia nuttalliana	35	Y	FACW
Hordeum jubatum	20	Y	FAC
Distichlis spicata	10	N	FAC
Lepidium latifolium	5	N	FAC
	70	=Total Cover	

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 2 (A)  
 Total Number of Dominant Species Across all Strata: 2 (B)  
 Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>35</u>	x 2 = <u>70</u>
FAC species <u>35</u>	x 3 = <u>105</u>
FACU species <u>0</u>	x 4 = <u>0</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>70</u> (A)	<u>175</u> (B)
Prevalence Index = B/A= <u>2.50</u>	

### Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
 Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No       

% Bare Ground in Herb Stratum 25 % Cover of Biotic Crust

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation is hydrophytic.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix			Redox Features				Texture	Remarks
	Color (moist)		%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 1	10YR	3.0/ 3	100					LOAM	
1 to 10	10YR	3.0/ 2	80	10YR 7/4	20	C	M	SILTY CLAY LOAM	
10 to 18	10YR	3.0/ 2	60	10YR 7/3	40	C	M	SILTY CLAY LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)                   |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)               |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)           |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)           |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input type="checkbox"/> Depleted Matrix (F3)               |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input checked="" type="checkbox"/> Redox Dark Surface (F6) |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7)         |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)             |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)                  |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |   |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- |   |
|---|
| <input type="checkbox"/> 1 cm Muck (A9) (LRR C)     |
| <input type="checkbox"/> 2 cm Muck (A10) (LRR B)    |
| <input type="checkbox"/> Reduced Vertic (F18)       |
| <input type="checkbox"/> Red Parent Material (TF2)  |
| <input type="checkbox"/> Other (Explain in Remarks) |

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes X No \_\_\_\_\_

## Remarks:

Soil meets criteria for hydric indicator F6.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input checked="" type="checkbox"/> Surface Soil Cracks (B6)       | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- |   |
|---|
| <input type="checkbox"/> Water Marks (B1) (Riverine)            |
| <input type="checkbox"/> Sediment Deposits (B2) (Riverine)      |
| <input type="checkbox"/> Drift Deposits (B3) (Riverine)         |
| <input type="checkbox"/> Drainage Patterns (B10)                |
| <input type="checkbox"/> Dry-Season Water Table (C2)            |
| <input type="checkbox"/> Crayfish Burrows (C8)                  |
| <input type="checkbox"/> Saturation Visible on Aerial Imag.(C9) |
| <input type="checkbox"/> Shallow Aquitard (D3)                  |
| <input checked="" type="checkbox"/> FAC-Neutral Test (D5)       |

**Field Observations:**

Surface Water Present?	Yes _____ No <u>X</u>	Depth (inches): _____
Water Table Present?	Yes _____ No <u>X</u>	Depth (inches): _____
Saturation Present?	Yes _____ No <u>X</u>	Depth (inches): _____

(includes capillary fringe)

**Wetland Hydrology Present?** Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

Prominent surface soil cracks.



# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 8/7/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 4 Sampling Point: 12-W-201208071417  
 Investigators: Mike Perkins Section, Township, Range S 22 T 4 R 2  
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): Concave Slope(%) 2  
 Subregion (LRR): LRR D Lat: 41.0664983222 Long: -112.058182002 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Ford loam, 0 to 1 percent slopes NWI Classification: PEMC  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No        (If No, explain in Remarks)  
 Are Vegetation       , Soil       , Hydrology       , significantly disturbed? Are "Normal Circumstances" present? Yes        No X  
 Are Vegetation       , Soil       , Hydrology X, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No <u>      </u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No <u>      </u> <b>Wetland ID:</b> <u>12-IW-33</u>
Hydric Soil Present? Yes <u>X</u> No <u>      </u>	
Wetland Hydrology Present? Yes <u>X</u> No <u>      </u>	

Remarks:  
 Sample point in small low area meets wetland criteria.

## VEGETATION— Use scientific names of plants.

**Absolute % Cover** **Dominant Species** **Indicator Status**

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

Carex praegracilis	25	Y	FACW
Hordeum jubatum	20	Y	FAC
Distichlis spicata	10	N	FAC
Lepidium latifolium	10	N	FAC
	65	=Total Cover	

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across all Strata: 2 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>25</u>	x 2 = <u>50</u>
FAC species <u>40</u>	x 3 = <u>120</u>
FACU species <u>0</u>	x 4 = <u>0</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>65</u> (A)	<u>170</u> (B)

Prevalence Index = B/A = 2.62

### Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
 Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No       

% Bare Ground in Herb Stratum 35 % Cover of Biotic Crust

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation is hydrophytic.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix			Redox Features				Texture	Remarks
	Color (moist)		%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 2	2.5YR	5.0 / 2	100					LOAM	
2 to 10	10YR	7.0 / 2	70	10YR 5/6	5	C	PL	SILTY CLAY LOAM	
10 to 18	10YR	7.0 / 2	100					CLAY	
10 to 10	10YR	5.0 / 1	25					SILTY CLAY LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |  |
|--|--|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)                |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)            |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)        |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)        |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input checked="" type="checkbox"/> Depleted Matrix (F3) |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)         |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7)      |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)          |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)               |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |  |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- |   |
|---|
| <input type="checkbox"/> 1 cm Muck (A9) (LRR C)     |
| <input type="checkbox"/> 2 cm Muck (A10) (LRR B)    |
| <input type="checkbox"/> Reduced Vertic (F18)       |
| <input type="checkbox"/> Red Parent Material (TF2)  |
| <input type="checkbox"/> Other (Explain in Remarks) |

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes X No \_\_\_\_\_

## Remarks:

Soil meets criteria for hydric indicator F3.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input checked="" type="checkbox"/> Surface Soil Cracks (B6)       | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- |   |
|---|
| <input type="checkbox"/> Water Marks (B1) (Riverine)            |
| <input type="checkbox"/> Sediment Deposits (B2) (Riverine)      |
| <input type="checkbox"/> Drift Deposits (B3) (Riverine)         |
| <input type="checkbox"/> Drainage Patterns (B10)                |
| <input type="checkbox"/> Dry-Season Water Table (C2)            |
| <input type="checkbox"/> Crayfish Burrows (C8)                  |
| <input type="checkbox"/> Saturation Visible on Aerial Imag.(C9) |
| <input type="checkbox"/> Shallow Aquitard (D3)                  |
| <input checked="" type="checkbox"/> FAC-Neutral Test (D5)       |

**Field Observations:**

Surface Water Present?	Yes _____ No <u>X</u>	Depth (inches):	____
Water Table Present?	Yes _____ No <u>X</u>	Depth (inches):	____
Saturation Present?	Yes _____ No <u>X</u>	Depth (inches):	____

(includes capillary fringe)

**Wetland Hydrology Present?** Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

Sampling point meets criteria for wetland hydrology.

Project Site:	<u>West Davis Corridor</u>		City/County:	<u>Davis County</u>		Sampling Date:	<u>5/9/2012</u>	
Applicant/Owner:	<u>UDOT</u>		State:	<u>UT</u>		Map/Sheet:	<u>5</u>	
Investigators:	<u>Ron Kass</u>		<u>Paul Dawson</u>		Section, Township, Range	<u>S 23</u>	<u>T 4</u>	<u>R 2</u>
Landform (hillslope, terrace, etc.):	<u>Flat</u>		Local Relief (concave, convex, none):	<u>None</u>		Slope(%)	<u>0</u>	
Subregion (LRR):	<u>LRR D</u>		Lat:	<u>41.0616623275</u>		Long:	<u>-112.045252492</u>	
						Datum:	<u>GCS_WGS_1984</u>	
Soil Map Unit Name:	<u>Ford loam, shallow water table, 0 to 1 percent slopes</u>					NWI Classification:		
Are climatic / hydrologic conditions on the site typical for this time of year?			Yes	<u>X</u>	No	(If No, explain in Remarks)		
Are Vegetation <u>    </u> , Soil <u>    </u> , Hydrology <u>    </u> , significantly disturbed?			Are "Normal Circumstances" present?			Yes	<u>X</u>	No <u>    </u>
Are Vegetation <u>    </u> , Soil <u>    </u> , Hydrology <u>    </u> , naturally problematic?			(If needed, explain any answers in Remarks.)					

Hydrophytic Vegetation Present?	Yes	<u>X</u>	No	<u>      </u>	<b>Is the Sampled Area within a Wetland?</b>  <b>Yes</b> <u>      </u> <b>No</b> <u><b>X</b></u>  <b>Wetland ID:</b> <u>14-W-67</u>
Hydric Soil Present?	Yes	<u>      </u>	No	<u>X</u>	
Wetland Hydrology Present?	Yes	<u>      </u>	No	<u>X</u>	

Arid West – Version 2.0

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 24	10YR	3.0 / 2					SILT LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)           |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)       |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)   |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)   |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input type="checkbox"/> Depleted Matrix (F3)       |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)     |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)          |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |   |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- |   |
|---|
| <input type="checkbox"/> 1 cm Muck (A9) (LRR C)     |
| <input type="checkbox"/> 2 cm Muck (A10) (LRR B)    |
| <input type="checkbox"/> Reduced Vertic (F18)       |
| <input type="checkbox"/> Red Parent Material (TF2)  |
| <input type="checkbox"/> Other (Explain in Remarks) |

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No X

## Remarks:

Soil fails to indicate hydric conditions.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- |   |
|---|
| <input type="checkbox"/> Water Marks (B1) (Riverine)            |
| <input type="checkbox"/> Sediment Deposits (B2) (Riverine)      |
| <input type="checkbox"/> Drift Deposits (B3) (Riverine)         |
| <input type="checkbox"/> Drainage Patterns (B10)                |
| <input type="checkbox"/> Dry-Season Water Table (C2)            |
| <input type="checkbox"/> Crayfish Burrows (C8)                  |
| <input type="checkbox"/> Saturation Visible on Aerial Imag.(C9) |
| <input type="checkbox"/> Shallow Aquitard (D3)                  |
| <input checked="" type="checkbox"/> FAC-Neutral Test (D5)       |

**Field Observations:**Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Water Table Present? Yes X No \_\_\_\_\_ Depth (inches): 20Saturation Present? Yes X No \_\_\_\_\_ Depth (inches): 15

(includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

Area lacks sufficient evidence for wetland hydrology.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 5/10/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 4 Sampling Point: 14-N-201205101023  
 Investigators: Ron Kass Paul Dawson Section, Township, Range S 22 T 4 R 2  
 Landform (hillslope, terrace, etc.): Basin Local Relief (concave, convex, none): Concave Slope(%) 1  
 Subregion (LRR): LRR D Lat: 41.0641706897 Long: -112.056405074 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Warm Springs fine sandy loam, saline, sodic, 0 to 1 percent slopes, chann NWI Classification: \_\_\_\_\_  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> Wetland ID: _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks:  
 Irrigation confounding site not a wetland.

## VEGETATION— Use scientific names of plants.

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
Eleocharis palustris	60	Y	OBL
Festuca pratensis	20	N	FACU
Schoenoplectus pungens	15	N	OBL
Phragmites australis	5	N	FACW
Typha latifolia	1	N	OBL
	101	=Total Cover	

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across all Strata: 1 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>76</u>	x 1 = <u>76</u>
FACW species <u>5</u>	x 2 = <u>10</u>
FAC species <u>0</u>	x 3 = <u>0</u>
FACU species <u>20</u>	x 4 = <u>80</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>101</u> (A)	<u>166</u> (B)

Prevalence Index = B/A = 1.64

### Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
 Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No \_\_\_\_\_

% Bare Ground in Herb Stratum \_\_\_\_\_ % Cover of Biotic Crust \_\_\_\_\_

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation is hydrophytic.



**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 16	10YR	4.0 / 2					SILT LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)           |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)       |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)   |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)   |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input type="checkbox"/> Depleted Matrix (F3)       |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)     |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)          |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |   |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- |   |
|---|
| <input type="checkbox"/> 1 cm Muck (A9) (LRR C)     |
| <input type="checkbox"/> 2 cm Muck (A10) (LRR B)    |
| <input type="checkbox"/> Reduced Vertic (F18)       |
| <input type="checkbox"/> Red Parent Material (TF2)  |
| <input type="checkbox"/> Other (Explain in Remarks) |

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No X

## Remarks:

Soil fails to indicate hydric conditions.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input checked="" type="checkbox"/> Surface Water (A1)             | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- |   |
|---|
| <input type="checkbox"/> Water Marks (B1) (Riverine)            |
| <input type="checkbox"/> Sediment Deposits (B2) (Riverine)      |
| <input type="checkbox"/> Drift Deposits (B3) (Riverine)         |
| <input type="checkbox"/> Drainage Patterns (B10)                |
| <input type="checkbox"/> Dry-Season Water Table (C2)            |
| <input type="checkbox"/> Crayfish Burrows (C8)                  |
| <input type="checkbox"/> Saturation Visible on Aerial Imag.(C9) |
| <input type="checkbox"/> Shallow Aquitard (D3)                  |
| <input checked="" type="checkbox"/> FAC-Neutral Test (D5)       |

**Field Observations:**Surface Water Present? Yes X No \_\_\_\_\_ Depth (inches): 0-4Water Table Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Saturation Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_

(includes capillary fringe)

**Wetland Hydrology Present?** Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 5/10/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 5 Sampling Point: 14-N-201205101115  
 Investigators: Ron Kass Paul Dawson Section, Township, Range S 22 T 4 R 2  
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): None Slope(%) 0  
 Subregion (LRR): LRR D Lat: 41.0645406838 Long: -112.049070657 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Ford loam, shallow water table, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> <b>Wetland ID:</b> _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks:  
 Sampling point has hydrophytic vegetation and wetland hydrology, but soil fails to indicate hydric conditions. Data point does not indicate a wetland.

## VEGETATION— Use scientific names of plants.

	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
<u>Tree Stratum</u>			
<u>Shrub Stratum</u>			
<u>Herb Stratum</u> (Plot size: <u>30 Ft</u> )			
<u>Hordeum jubatum</u>	<u>50</u>	<u>Y</u>	<u>FAC</u>
<u>Thinopyrum ponticum</u>	<u>10</u>	<u>N</u>	<u>UPL</u>
<u>Phragmites australis</u>	<u>3</u>	<u>N</u>	<u>FACW</u>
<u>Juncus arcticus</u>	<u>1</u>	<u>N</u>	<u>FACW</u>
	<u>64</u>	<u>=Total Cover</u>	
<u>Vine Stratum</u>			

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 1 (A)  
 Total Number of Dominant Species Across all Strata: 1 (B)  
 Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>4</u>	x 2 = <u>8</u>
FAC species <u>50</u>	x 3 = <u>150</u>
FACU species <u>0</u>	x 4 = <u>0</u>
UPL species <u>10</u>	x 5 = <u>50</u>
Column Totals: <u>64</u> (A)	<u>208</u> (B)
Prevalence Index = B/A= <u>3.25</u>	

### Hydrophytic Vegetation Indicators:

   Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
   Prevalence Index ≤ 3.0  
   Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
   Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No \_\_\_\_\_

% Bare Ground in Herb Stratum 5 % Cover of Biotic Crust \_\_\_\_\_

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation qualifies as hydrophytic by the Dominance Test.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix			Redox Features				Texture	Remarks
	Color (moist)		%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 10	10YR	3.0 / 1	100					SILT LOAM	
10 to 18	10YR	3.0 / 2	50	10YR 4/1	50	D	M	SILT LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)           |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)       |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)   |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)   |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input type="checkbox"/> Depleted Matrix (F3)       |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)     |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)          |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |   |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)  
☐ 2 cm Muck (A10) (LRR B)  
☐ Reduced Vertic (F18)  
☐ Red Parent Material (TF2)  
☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No X

## Remarks:

Soil fails to indicate hydric conditions though very close to Depleted Dark Surface.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input checked="" type="checkbox"/> High Water Table (A2)          | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input checked="" type="checkbox"/> Saturation (A3)                | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)  
☐ Sediment Deposits (B2) (Riverine)  
☐ Drift Deposits (B3) (Riverine)  
☐ Drainage Patterns (B10)  
☐ Dry-Season Water Table (C2)  
☐ Crayfish Burrows (C8)  
☐ Saturation Visible on Aerial Imag.(C9)  
☐ Shallow Aquitard (D3)  
☐ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present?	Yes	_____	No	<u>X</u>	Depth (inches):	_____
Water Table Present?	Yes	<u>X</u>	No	_____	Depth (inches):	8
Saturation Present?	Yes	<u>X</u>	No	_____	Depth (inches):	4

(includes capillary fringe)

**Wetland Hydrology Present?** Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

Wetland hydrology present.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 5/10/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 5 Sampling Point: 14-N-201205101204  
 Investigators: Ron Kass Paul Dawson Section, Township, Range S 22 T 4 R 2  
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): None Slope(%) 0  
 Subregion (LRR): LRR D Lat: 41.0645375667 Long: -112.048741838 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Ford loam, shallow water table, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <u>X</u> Hydric Soil Present? Yes <u>X</u> No _____ Wetland Hydrology Present? Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>X</u>  Wetland ID: _____
---	--

Remarks:  
 Sampling point not a wetland.

## VEGETATION— Use scientific names of plants.

	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
<u>Tree Stratum</u>			
<u>Shrub Stratum</u>			
<u>Herb Stratum</u> (Plot size: <u>30 Ft</u> )			
<u>Thinopyrum ponticum</u>	80	Y	UPL
	80	=Total Cover	
<u>Vine Stratum</u>			

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 0 (A)  
  
 Total Number of Dominant Species Across all Strata: 1 (B)  
  
 Percent of Dominant Species That are OBL, FACW, or FAC: 0.0% (A/B)

### Prevalence Index Worksheet:

	Total % Cover of:	Multiply by:
OBL species	<u>0</u>	x 1 = <u>0</u>
FACW species	<u>0</u>	x 2 = <u>0</u>
FAC species	<u>0</u>	x 3 = <u>0</u>
FACU species	<u>0</u>	x 4 = <u>0</u>
UPL species	<u>80</u>	x 5 = <u>400</u>
Column Totals:	<u>80</u> (A)	<u>400</u> (B)
<i>Prevalence Index = B/A=</i> <u>5.00</u>		

### Hydrophytic Vegetation Indicators:

☐ Rapid Test for Hydrophytic Vegetation  
☐ Dominance Test > 50%  
☐ Prevalence Index ≤ 3.0  
☐ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
☐ Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes \_\_\_\_\_ No X

% Bare Ground in Herb Stratum 20 % Cover of Biotic Crust \_\_\_\_\_

Remarks: (Include photo numbers here or on a separate sheet.)

Upland vegetation.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix			Redox Features				Texture	Remarks
	Color (moist)		%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 10	10YR	4.0 / 2	100					SILT LOAM	
10 to 18	10YR	4.0 / 1	60	10YR 2/1	40	C	M	SILT LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- ☐ Histosol (A1)  
☐ Histic Epipedon (A2)  
☐ Black Histic (A3)  
☐ Hydrogen Sulfide (A4)  
☐ Stratified Layers (A5) LRR C  
☐ 1 cm Muck (A9) LRR F D  
☐ Depleted Below Dark Surface (A11)  
☐ Thick Dark Surface (A12)  
☐ Sandy Mucky Mineral (S1)  
☐ Sandy Gleyed Matrix (S4)

- ☐ Sandy Redox (S5)  
☐ Stripped Matrix (S6)  
☐ Loamy Mucky Mineral (F1)  
☐ Loamy Gleyed Matrix (F2)  
☒ Depleted Matrix (F3)  
☐ Redox Dark Surface (F6)  
☐ Depleted Dark Surface (F7)  
☐ Redox Depressions (F8)  
☐ Vernal Pools (F9)

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)  
☐ 2 cm Muck (A10) (LRR B)  
☐ Reduced Vertic (F18)  
☐ Red Parent Material (TF2)  
☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes X No \_\_\_\_\_**Remarks:**

Soil meets criteria of hydric indicator F3.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)  
☐ High Water Table (A2)  
☐ Saturation (A3)  
☐ Water Marks (B1) (Nonriverine)  
☐ Sediment Deposits (B2) (Nonriverine)  
☐ Drift Deposits (B3) (Nonriverine)  
☐ Surface Soil Cracks (B6)  
☐ Inundation Visible on Aerial Imagery (B7)  
☐ Water-Stained Leaves (B9)  
☐ Salt Crust (B11)  
☐ Biotic Crust (B12)  
☐ Aquatic Fauna (B13)  
☐ Hydrogen Sulfide Odor (C1)  
☐ Oxidized Rhizospheres along Living Roots (C3)  
☐ Presence of Reduced Iron (C4)  
☐ Recent Iron Reduction in Tilled Soils (C6)  
☐ Thin Muck Surface (C7)  
☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)  
☐ Sediment Deposits (B2) (Riverine)  
☐ Drift Deposits (B3) (Riverine)  
☐ Drainage Patterns (B10)  
☐ Dry-Season Water Table (C2)  
☐ Crayfish Burrows (C8)  
☐ Saturation Visible on Aerial Imag.(C9)  
☐ Shallow Aquitard (D3)  
☐ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_  
 Water Table Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_  
 Saturation Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_  
 (includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

**Remarks:**

No hydrology indicators observed.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 5/10/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 5 Sampling Point: 14-N-201205101230  
 Investigators: Ron Kass Paul Dawson Section, Township, Range S 22 T 4 R 2  
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): Concave Slope(%) 1  
 Subregion (LRR): LRR D Lat: 41.0632373546 Long: -112.047282926 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Ford loam, shallow water table, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes \_\_\_\_\_ No X  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology X, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> <b>Wetland ID:</b> _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	

Remarks:  
 Upland data point. Failed all three parameters.

## VEGETATION— Use scientific names of plants.

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
<u>Festuca pratensis</u>	<u>80</u>	<u>Y</u>	<u>FACU</u>
<u>Phragmites australis</u>	<u>15</u>	<u>N</u>	<u>FACW</u>
<u>Eleocharis palustris</u>	<u>3</u>	<u>N</u>	<u>OBL</u>
<u>Schoenoplectus pungens</u>	<u>2</u>	<u>N</u>	<u>OBL</u>
	<u>100</u>	<u>=Total Cover</u>	

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 1 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 0.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>5</u>	x 1 = <u>5</u>
FACW species <u>15</u>	x 2 = <u>30</u>
FAC species <u>0</u>	x 3 = <u>0</u>
FACU species <u>80</u>	x 4 = <u>320</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>100</u> (A)	<u>355</u> (B)

Prevalence Index = B/A= 3.55

### Hydrophytic Vegetation Indicators:

☐ Rapid Test for Hydrophytic Vegetation  
☐ Dominance Test > 50%  
☐ Prevalence Index ≤ 3.0  
☐ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
☐ Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

% Bare Ground in Herb Stratum \_\_\_\_\_ % Cover of Biotic Crust \_\_\_\_\_

**Hydrophytic Vegetation Present?** Yes \_\_\_\_\_ No X

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation is not hydrophytic.



**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 18	10YR	4.0 / 2		100			SILT LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)           |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)       |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)   |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)   |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input type="checkbox"/> Depleted Matrix (F3)       |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)     |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)          |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |   |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- |   |
|---|
| <input type="checkbox"/> 1 cm Muck (A9) (LRR C)     |
| <input type="checkbox"/> 2 cm Muck (A10) (LRR B)    |
| <input type="checkbox"/> Reduced Vertic (F18)       |
| <input type="checkbox"/> Red Parent Material (TF2)  |
| <input type="checkbox"/> Other (Explain in Remarks) |

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No X

## Remarks:

Soil fails to indicate hydric conditions.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- |   |
|---|
| <input type="checkbox"/> Water Marks (B1) (Riverine)            |
| <input type="checkbox"/> Sediment Deposits (B2) (Riverine)      |
| <input type="checkbox"/> Drift Deposits (B3) (Riverine)         |
| <input type="checkbox"/> Drainage Patterns (B10)                |
| <input type="checkbox"/> Dry-Season Water Table (C2)            |
| <input type="checkbox"/> Crayfish Burrows (C8)                  |
| <input type="checkbox"/> Saturation Visible on Aerial Imag.(C9) |
| <input type="checkbox"/> Shallow Aquitard (D3)                  |
| <input type="checkbox"/> FAC-Neutral Test (D5)                  |

**Field Observations:**Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Water Table Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Saturation Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_

(includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

No hydrology indicators observed.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 8/9/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 5 Sampling Point: 14-N-201208091228  
 Investigators: Mike Perkins Nate Nichols Section, Township, Range S 22 T 4 R 2  
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): Concave Slope(%) 1  
 Subregion (LRR): LRR D Lat: 41.0606391638 Long: -112.047413526 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Ford loam, shallow water table, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes \_\_\_\_\_ No X  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology X, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> Wetland ID: _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks:  
 Sample point suggests area is a not a wetland.

## VEGETATION— Use scientific names of plants.

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
Eleocharis palustris	40	Y	OBL
Schoenoplectus pungens	25	Y	OBL
Distichlis spicata	5	N	FAC
Hordeum jubatum	5	N	FAC
Phragmites australis	5	N	FACW
Thinopyrum intermedium	5	N	UPL
	85	=Total Cover	

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across all Strata: 2 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>65</u>	x 1 = <u>65</u>
FACW species <u>5</u>	x 2 = <u>10</u>
FAC species <u>10</u>	x 3 = <u>30</u>
FACU species <u>0</u>	x 4 = <u>0</u>
UPL species <u>5</u>	x 5 = <u>25</u>
Column Totals: <u>85</u> (A)	<u>130</u> (B)

Prevalence Index = B/A = 1.53

### Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
 Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No \_\_\_\_\_

% Bare Ground in Herb Stratum 20 % Cover of Biotic Crust

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation is hydrophytic.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 1	10YR	4.0/ 3	100				LOAM	
1 to 8	10YR	3.0/ 4	100				SILTY CLAY LOAM	
8 to 16	10YR	6.0/ 3	100				SILTY CLAY	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- ☐ Histosol (A1)  
☐ Histic Epipedon (A2)  
☐ Black Histic (A3)  
☐ Hydrogen Sulfide (A4)  
☐ Stratified Layers (A5) LRR C  
☐ 1 cm Muck (A9) LRR F D  
☐ Depleted Below Dark Surface (A11)  
☐ Thick Dark Surface (A12)  
☐ Sandy Mucky Mineral (S1)  
☐ Sandy Gleyed Matrix (S4)

- ☐ Sandy Redox (S5)  
☐ Stripped Matrix (S6)  
☐ Loamy Mucky Mineral (F1)  
☐ Loamy Gleyed Matrix (F2)  
☐ Depleted Matrix (F3)  
☐ Redox Dark Surface (F6)  
☐ Depleted Dark Surface (F7)  
☐ Redox Depressions (F8)  
☐ Vernal Pools (F9)

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)  
☐ 2 cm Muck (A10) (LRR B)  
☐ Reduced Vertic (F18)  
☐ Red Parent Material (TF2)  
☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No X

## Remarks:

Soil fails to indicate hydric conditions.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)  
☐ High Water Table (A2)  
☐ Saturation (A3)  
☐ Water Marks (B1) (Nonriverine)  
☐ Sediment Deposits (B2) (Nonriverine)  
☐ Drift Deposits (B3) (Nonriverine)  
☒ Surface Soil Cracks (B6)  
☐ Inundation Visible on Aerial Imagery (B7)  
☐ Water-Stained Leaves (B9)  
☐ Salt Crust (B11)  
☐ Biotic Crust (B12)  
☐ Aquatic Fauna (B13)  
☐ Hydrogen Sulfide Odor (C1)  
☐ Oxidized Rhizospheres along Living Roots (C3)  
☐ Presence of Reduced Iron (C4)  
☐ Recent Iron Reduction in Tilled Soils (C6)  
☐ Thin Muck Surface (C7)  
☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)  
☐ Sediment Deposits (B2) (Riverine)  
☐ Drift Deposits (B3) (Riverine)  
☐ Drainage Patterns (B10)  
☐ Dry-Season Water Table (C2)  
☐ Crayfish Burrows (C8)  
☐ Saturation Visible on Aerial Imag.(C9)  
☐ Shallow Aquitard (D3)  
☒ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_  
Water Table Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_  
Saturation Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_  
(includes capillary fringe)

**Wetland Hydrology Present?** Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

Prominent surface soil cracks suggest seasonal ponding.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 8/13/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 5 Sampling Point: 14-N-201208131317  
 Investigators: Mike Perkins Nate Nichols Section, Township, Range S 27 T 4 R 2  
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): Concave Slope(%) 1  
 Subregion (LRR): LRR D Lat: 41.0597938558 Long: -112.046264469 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Ford loam, shallow water table, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology X, significantly disturbed? Are "Normal Circumstances" present? Yes \_\_\_\_\_ No X  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology X, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> <b>Wetland ID:</b> _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	

Remarks:  
 Sample point suggests area is not a wetland, though site is dominated by obligate wetland vegetation. Leaking well to the southeast is influencing this data point to some degree. This data point is on the drier side of the edge of the wetland to the southeast.

## VEGETATION— Use scientific names of plants.

	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
<u>Tree Stratum</u>			
<u>Shrub Stratum</u>			
<u>Herb Stratum</u> (Plot size: <u>30 Ft</u> )			
Eleocharis palustris	40	Y	OBL
Typha latifolia	30	Y	OBL
Distichlis spicata	5	N	FAC
Polypogon monspeliensis	5	N	FACW
Schoenoplectus pungens	5	N	OBL
	85	=Total Cover	

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 2 (A)  
 Total Number of Dominant Species Across all Strata: 2 (B)  
 Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>75</u>	x 1 = <u>75</u>
FACW species <u>5</u>	x 2 = <u>10</u>
FAC species <u>5</u>	x 3 = <u>15</u>
FACU species <u>0</u>	x 4 = <u>0</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>85</u> (A)	<u>100</u> (B)
Prevalence Index = B/A = <u>1.18</u>	

### Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
 Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No \_\_\_\_\_

% Bare Ground in Herb Stratum 0 % Cover of Biotic Crust \_\_\_\_\_

Remarks: (Include photo numbers here or on a separate sheet.)  
 Emergent marsh community, but with low vigor compared to the vegetation to the southeast.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 1	10YR 2.0/ 2	100					LOAM	organic root mat
1 to 2	10YR 3.0/ 3	100					SANDY CLAY	
2 to 10	10YR 2.0/ 1	100					SILTY CLAY	
10 to 18	10YR 3.0/ 3	100					SANDY CLAY LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- ☐ Histosol (A1)  
☐ Histic Epipedon (A2)  
☐ Black Histic (A3)  
☐ Hydrogen Sulfide (A4)  
☐ Stratified Layers (A5) LRR C  
☐ 1 cm Muck (A9) LRR F D  
☐ Depleted Below Dark Surface (A11)  
☐ Thick Dark Surface (A12)  
☐ Sandy Mucky Mineral (S1)  
☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)  
☐ Stripped Matrix (S6)  
☐ Loamy Mucky Mineral (F1)  
☐ Loamy Gleyed Matrix (F2)  
☐ Depleted Matrix (F3)  
☐ Redox Dark Surface (F6)  
☐ Depleted Dark Surface (F7)  
☐ Redox Depressions (F8)  
☐ Vernal Pools (F9)

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)  
☐ 2 cm Muck (A10) (LRR B)  
☐ Reduced Vertic (F18)  
☐ Red Parent Material (TF2)  
☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No X**Remarks:**

Soil fails to indicate hydric conditions, but approaching conditions for A12, Thick Dark Surface, but 2/1 layer too thin.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)  
☐ High Water Table (A2)  
☐ Saturation (A3)  
☐ Water Marks (B1) (Nonriverine)  
☐ Sediment Deposits (B2) (Nonriverine)  
☐ Drift Deposits (B3) (Nonriverine)  
☐ Surface Soil Cracks (B6)  
☐ Inundation Visible on Aerial Imagery (B7)  
☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)  
☐ Biotic Crust (B12)  
☐ Aquatic Fauna (B13)  
☐ Hydrogen Sulfide Odor (C1)  
☐ Oxidized Rhizospheres along Living Roots (C3)  
☐ Presence of Reduced Iron (C4)  
☐ Recent Iron Reduction in Tilled Soils (C6)  
☐ Thin Muck Surface (C7)  
☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)  
☐ Sediment Deposits (B2) (Riverine)  
☐ Drift Deposits (B3) (Riverine)  
☐ Drainage Patterns (B10)  
☐ Dry-Season Water Table (C2)  
☐ Crayfish Burrows (C8)  
☐ Saturation Visible on Aerial Imag.(C9)  
☐ Shallow Aquitard (D3)  
☒ FAC-Neutral Test (D5)

**Field Observations:**Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Water Table Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Saturation Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_

(includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

**Remarks:**

Dry area lacks sufficient evidence for wetland hydrology, but during dry time of year.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 5/2/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 5 Sampling Point: 14-W-201205021342  
 Investigators: Paul Dawson Ron Kass Section, Township, Range S 23 T 4 R 2  
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): None Slope(%) 0  
 Subregion (LRR): LRR D Lat: 41.0607202376 Long: -112.043752585 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Ford loam, shallow water table, 0 to 1 percent slopes NWI Classification: PEMF  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes      No X (If No, explain in Remarks)  
 Are Vegetation     , Soil     , Hydrology     , significantly disturbed? Are "Normal Circumstances" present? Yes X No       
 Are Vegetation     , Soil     , Hydrology     , naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No <u>    </u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No <u>    </u> <b>Wetland ID:</b> <u>14-W-67</u>
Hydric Soil Present? Yes <u>    </u> No <u>X</u>	
Wetland Hydrology Present? Yes <u>X</u> No <u>    </u>	

Remarks:  
 Irrigation confounded wetland where vegetation and hydrology indicate a wetland, but soils are borderline but fail to be hydric.

## VEGETATION— Use scientific names of plants.

	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
<u>Tree Stratum</u>			
<u>Shrub Stratum</u>			
<u>Herb Stratum</u> (Plot size: <u>30 Ft</u> )			
<u>Juncus alpinoarticulatus</u>	<u>20</u>	<u>Y</u>	<u>OBL</u>
<u>Distichlis spicata</u>	<u>10</u>	<u>Y</u>	<u>FAC</u>
<u>Xanthium strumarium</u>	<u>3</u>	<u>N</u>	<u>FAC</u>
	<u>33</u>	<u>=Total Cover</u>	
<u>Vine Stratum</u>			

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 2 (A)  
 Total Number of Dominant Species Across all Strata: 2 (B)  
 Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>20</u>	x 1 = <u>20</u>
FACW species <u>0</u>	x 2 = <u>0</u>
FAC species <u>13</u>	x 3 = <u>39</u>
FACU species <u>0</u>	x 4 = <u>0</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>33</u> (A)	<u>59</u> (B)

Prevalence Index = B/A = 1.79

### Hydrophytic Vegetation Indicators:

     Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
     Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
     Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No     

% Bare Ground in Herb Stratum      % Cover of Biotic Crust     

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation is hydrophytic.



**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix			Redox Features				Texture	Remarks
	Color (moist)		%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 9	10YR	3.0 / 2	95	10YR 5/2	5	D	M	SILT LOAM	
9 to 18	10YR	3.0 / 2	95	10YR 5/2	5	D	M	SILT LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- ☐ Histosol (A1)  
☐ Histic Epipedon (A2)  
☐ Black Histic (A3)  
☐ Hydrogen Sulfide (A4)  
☐ Stratified Layers (A5) LRR C  
☐ 1 cm Muck (A9) LRR F D  
☐ Depleted Below Dark Surface (A11)  
☐ Thick Dark Surface (A12)  
☐ Sandy Mucky Mineral (S1)  
☐ Sandy Gleyed Matrix (S4)

- ☐ Sandy Redox (S5)  
☐ Stripped Matrix (S6)  
☐ Loamy Mucky Mineral (F1)  
☐ Loamy Gleyed Matrix (F2)  
☐ Depleted Matrix (F3)  
☐ Redox Dark Surface (F6)  
☐ Depleted Dark Surface (F7)  
☐ Redox Depressions (F8)  
☐ Vernal Pools (F9)

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)  
☐ 2 cm Muck (A10) (LRR B)  
☐ Reduced Vertic (F18)  
☐ Red Parent Material (TF2)  
☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No X

## Remarks:

Soil fails to indicate hydric conditions.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)  
☒ High Water Table (A2)  
☒ Saturation (A3)  
☐ Water Marks (B1) (Nonriverine)  
☐ Sediment Deposits (B2) (Nonriverine)  
☐ Drift Deposits (B3) (Nonriverine)  
☐ Surface Soil Cracks (B6)  
☐ Inundation Visible on Aerial Imagery (B7)  
☐ Water-Stained Leaves (B9)  
☐ Salt Crust (B11)  
☐ Biotic Crust (B12)  
☐ Aquatic Fauna (B13)  
☐ Hydrogen Sulfide Odor (C1)  
☐ Oxidized Rhizospheres along Living Roots (C3)  
☐ Presence of Reduced Iron (C4)  
☐ Recent Iron Reduction in Tilled Soils (C6)  
☐ Thin Muck Surface (C7)  
☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)  
☐ Sediment Deposits (B2) (Riverine)  
☐ Drift Deposits (B3) (Riverine)  
☐ Drainage Patterns (B10)  
☐ Dry-Season Water Table (C2)  
☐ Crayfish Burrows (C8)  
☐ Saturation Visible on Aerial Imag.(C9)  
☐ Shallow Aquitard (D3)  
☒ FAC-Neutral Test (D5)

**Field Observations:**Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Water Table Present? Yes X No \_\_\_\_\_ Depth (inches): 8Saturation Present? Yes X No \_\_\_\_\_ Depth (inches): 4

(includes capillary fringe)

**Wetland Hydrology Present?** Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

Wetland hydrology present.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 5/2/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 5 Sampling Point: 14-W-201205021436  
 Investigators: Paul Dawson Ron Kass Section, Township, Range S 23 T 4 R 2  
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): None Slope(%) 1  
 Subregion (LRR): LRR D Lat: 41.0608693564 Long: -112.043169905 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Ford loam, shallow water table, 0 to 1 percent slopes NWI Classification: PEMC

Are climatic / hydrologic conditions on the site typical for this time of year? Yes      No X (If No, explain in Remarks)  
 Are Vegetation     , Soil     , Hydrology     , significantly disturbed? Are "Normal Circumstances" present? Yes X No       
 Are Vegetation     , Soil     , Hydrology     , naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No <u>    </u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No <u>    </u>  <b>Wetland ID:</b> <u>14-W-67</u>
Hydric Soil Present? Yes <u>    </u> No <u>X</u>	
Wetland Hydrology Present? Yes <u>X</u> No <u>    </u>	

Remarks:  
 Sampling point is a wetland even though soils are borderline but fail to exactly meet any hydric indicators. Hydrophytic vegetation is vigorous and wetland hydrology was observed.

## VEGETATION— Use scientific names of plants.

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
Juncus arcticus	90	Y	FACW
Dipsacus fullonum	5	N	FAC
	95	=Total Cover	

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across all Strata: 1 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	<u>0</u>	x 1 =	<u>0</u>
FACW species	<u>90</u>	x 2 =	<u>180</u>
FAC species	<u>5</u>	x 3 =	<u>15</u>
FACU species	<u>0</u>	x 4 =	<u>0</u>
UPL species	<u>0</u>	x 5 =	<u>0</u>
Column Totals:	<u>95</u> (A)		<u>195</u> (B)

Prevalence Index = B/A = 2.05

### Hydrophytic Vegetation Indicators:

     Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
     Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
     Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No     

% Bare Ground in Herb Stratum      % Cover of Biotic Crust     

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation is hydrophytic and vigorous.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix			Redox Features				Texture	Remarks
	Color (moist)		%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 4	10YR	4.0 / 3	100					SILT LOAM	
4 to 8	10YR	3.0 / 2	90	10YR 5/2	10	D	M	SILT LOAM	
8 to 18	10YR	3.0 / 1	100					SANDY LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- ☐ Histosol (A1)  
☐ Histic Epipedon (A2)  
☐ Black Histic (A3)  
☐ Hydrogen Sulfide (A4)  
☐ Stratified Layers (A5) LRR C  
☐ 1 cm Muck (A9) LRR F D  
☐ Depleted Below Dark Surface (A11)  
☐ Thick Dark Surface (A12)  
☐ Sandy Mucky Mineral (S1)  
☐ Sandy Gleyed Matrix (S4)

- ☐ Sandy Redox (S5)  
☐ Stripped Matrix (S6)  
☐ Loamy Mucky Mineral (F1)  
☐ Loamy Gleyed Matrix (F2)  
☐ Depleted Matrix (F3)  
☐ Redox Dark Surface (F6)  
☐ Depleted Dark Surface (F7)  
☐ Redox Depressions (F8)  
☐ Vernal Pools (F9)

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)  
☐ 2 cm Muck (A10) (LRR B)  
☐ Reduced Vertic (F18)  
☐ Red Parent Material (TF2)  
☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No X

## Remarks:

Soil close to F7 but fails to be hydric because depletions are not sufficient in composition and in character (5/2 without redox concentrations).

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)  
☐ High Water Table (A2)  
☒ Saturation (A3)  
☐ Water Marks (B1) (Nonriverine)  
☐ Sediment Deposits (B2) (Nonriverine)  
☐ Drift Deposits (B3) (Nonriverine)  
☐ Surface Soil Cracks (B6)  
☐ Inundation Visible on Aerial Imagery (B7)  
☐ Water-Stained Leaves (B9)  
☐ Salt Crust (B11)  
☐ Biotic Crust (B12)  
☐ Aquatic Fauna (B13)  
☐ Hydrogen Sulfide Odor (C1)  
☐ Oxidized Rhizospheres along Living Roots (C3)  
☐ Presence of Reduced Iron (C4)  
☐ Recent Iron Reduction in Tilled Soils (C6)  
☐ Thin Muck Surface (C7)  
☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)  
☐ Sediment Deposits (B2) (Riverine)  
☐ Drift Deposits (B3) (Riverine)  
☐ Drainage Patterns (B10)  
☐ Dry-Season Water Table (C2)  
☐ Crayfish Burrows (C8)  
☐ Saturation Visible on Aerial Imag.(C9)  
☐ Shallow Aquitard (D3)  
☒ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_  
Water Table Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_  
Saturation Present? Yes X No \_\_\_\_\_ Depth (inches): 11  
(includes capillary fringe)

**Wetland Hydrology Present?** Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

Wetland hydrology present.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 5/2/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 5 Sampling Point: 14-W-201205021532  
 Investigators: Paul Dawson Ron Kass Section, Township, Range S 23 T 4 R 2  
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): None Slope(%) 0  
 Subregion (LRR): LRR D Lat: 41.0613024712 Long: -112.043135816 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Ford loam, shallow water table, 0 to 1 percent slopes NWI Classification: PEMC  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes      No X (If No, explain in Remarks)  
 Are Vegetation     , Soil     , Hydrology     , significantly disturbed? Are "Normal Circumstances" present? Yes X No       
 Are Vegetation     , Soil     , Hydrology     , naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No <u>    </u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No <u>    </u> Wetland ID: <u>14-W-67</u>
Hydric Soil Present? Yes <u>    </u> No <u>X</u>	
Wetland Hydrology Present? Yes <u>X</u> No <u>    </u>	

Remarks:  
 Wet meadow with vigorous rush growth and wetland hydrology but only dark soils. Data point suggests a wetland even though the soils did not appear to be hydric but could be assumed so based on the vegetation and hydrology.

## VEGETATION— Use scientific names of plants.

<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
95	Y	FACW
5	N	FAC
100	=Total Cover	

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

Juncus arcticus  
Distichlis spicata

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 1 (A)  
 Total Number of Dominant Species Across all Strata: 1 (B)  
 Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>95</u>	x 2 = <u>190</u>
FAC species <u>5</u>	x 3 = <u>15</u>
FACU species <u>0</u>	x 4 = <u>0</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>100</u> (A)	<u>205</u> (B)
Prevalence Index = B/A= <u>2.05</u>	

### Hydrophytic Vegetation Indicators:

     Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
     Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
     Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No     

% Bare Ground in Herb Stratum      % Cover of Biotic Crust     

Remarks: (Include photo numbers here or on a separate sheet.)

Extremely vigorous Juncus.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 18	10YR	3.0 / 2					SILTY CLAY LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)           |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)       |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)   |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)   |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input type="checkbox"/> Depleted Matrix (F3)       |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)     |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)          |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |   |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- |   |
|---|
| <input type="checkbox"/> 1 cm Muck (A9) (LRR C)     |
| <input type="checkbox"/> 2 cm Muck (A10) (LRR B)    |
| <input type="checkbox"/> Reduced Vertic (F18)       |
| <input type="checkbox"/> Red Parent Material (TF2)  |
| <input type="checkbox"/> Other (Explain in Remarks) |

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No X

## Remarks:

Soil fails to indicate hydric conditions.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input checked="" type="checkbox"/> High Water Table (A2)          | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input checked="" type="checkbox"/> Saturation (A3)                | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- |   |
|---|
| <input type="checkbox"/> Water Marks (B1) (Riverine)            |
| <input type="checkbox"/> Sediment Deposits (B2) (Riverine)      |
| <input type="checkbox"/> Drift Deposits (B3) (Riverine)         |
| <input type="checkbox"/> Drainage Patterns (B10)                |
| <input type="checkbox"/> Dry-Season Water Table (C2)            |
| <input type="checkbox"/> Crayfish Burrows (C8)                  |
| <input type="checkbox"/> Saturation Visible on Aerial Imag.(C9) |
| <input type="checkbox"/> Shallow Aquitard (D3)                  |
| <input checked="" type="checkbox"/> FAC-Neutral Test (D5)       |

**Field Observations:**Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Water Table Present? Yes X No \_\_\_\_\_ Depth (inches): 12Saturation Present? Yes X No \_\_\_\_\_ Depth (inches): 9

(includes capillary fringe)

**Wetland Hydrology Present?** Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

High water table and saturation indicates wetland hydrology.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 5/3/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 5 Sampling Point: 14-W-201205031421  
 Investigators: Ron Kass Paul Dawson Section, Township, Range S 23 T 4 R 2  
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): None Slope(%) 0  
 Subregion (LRR): LRR D Lat: 41.0604560561 Long: -112.045206321 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Ford loam, shallow water table, 0 to 1 percent slopes NWI Classification: PEMC  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No        (If No, explain in Remarks)  
 Are Vegetation       , Soil       , Hydrology       , significantly disturbed? Are "Normal Circumstances" present? Yes X No         
 Are Vegetation       , Soil       , Hydrology       , naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No <u>      </u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No <u>      </u> Wetland ID: <u>14-W-67</u>
Hydric Soil Present? Yes <u>X</u> No <u>      </u>	
Wetland Hydrology Present? Yes <u>X</u> No <u>      </u>	

Remarks:  
 Sampling point is a wetland.

## VEGETATION— Use scientific names of plants.

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
<u>Distichlis spicata</u>	<u>40</u>	<u>Y</u>	<u>FAC</u>
<u>Agrostis stolonifera</u>	<u>5</u>	<u>N</u>	<u>FACW</u>
<u>Juncus arcticus</u>	<u>5</u>	<u>N</u>	<u>FACW</u>
<u>Muhlenbergia asperifolia</u>	<u>5</u>	<u>N</u>	<u>FACW</u>
<u>Symphyotrichum lanceolatum</u>	<u>3</u>	<u>N</u>	<u>OBL</u>
<u>Dipsacus fullonum</u>	<u>1</u>	<u>N</u>	<u>FAC</u>
	<u>59</u>	<u>=Total Cover</u>	

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across all Strata: 1 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>3</u>	x 1 = <u>3</u>
FACW species <u>15</u>	x 2 = <u>30</u>
FAC species <u>41</u>	x 3 = <u>123</u>
FACU species <u>0</u>	x 4 = <u>0</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>59</u> (A)	<u>156</u> (B)

Prevalence Index = B/A = 2.64

### Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
       Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
       Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No       

% Bare Ground in Herb Stratum        % Cover of Biotic Crust       

Remarks: (Include photo numbers here or on a separate sheet.)

Facultative-dominant vegetation qualifies as hydrophytic.



**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 11	10YR	3.0/ 1	100				SILT LOAM	
11 to 18	10YR	5.0/ 1	100				SILT LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |   |   |
|---|---|
| <input type="checkbox"/> Histosol (A1)                                | <input type="checkbox"/> Sandy Redox (S5)           |
| <input type="checkbox"/> Histic Epipedon (A2)                         | <input type="checkbox"/> Stripped Matrix (S6)       |
| <input type="checkbox"/> Black Histic (A3)                            | <input type="checkbox"/> Loamy Mucky Mineral (F1)   |
| <input type="checkbox"/> Hydrogen Sulfide (A4)                        | <input type="checkbox"/> Loamy Gleyed Matrix (F2)   |
| <input type="checkbox"/> Stratified Layers (A5) LRR C                 | <input type="checkbox"/> Depleted Matrix (F3)       |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D                       | <input type="checkbox"/> Redox Dark Surface (F6)    |
| <input checked="" type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12)                     | <input type="checkbox"/> Redox Depressions (F8)     |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)                     | <input type="checkbox"/> Vernal Pools (F9)          |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)                     |   |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)  
☐ 2 cm Muck (A10) (LRR B)  
☐ Reduced Vertic (F18)  
☐ Red Parent Material (TF2)  
☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☒ **Restrictive Layer (if observed):**Type: calcic horizonDepth (inches): 17**Hydric Soil Present?** Yes X No     

## Remarks:

Soil meets criteria for hydric indicator A11.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input checked="" type="checkbox"/> High Water Table (A2)          | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input checked="" type="checkbox"/> Saturation (A3)                | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)  
☐ Sediment Deposits (B2) (Riverine)  
☐ Drift Deposits (B3) (Riverine)  
☐ Drainage Patterns (B10)  
☒ Dry-Season Water Table (C2)  
☐ Crayfish Burrows (C8)  
☐ Saturation Visible on Aerial Imag.(C9)  
☒ Shallow Aquitard (D3)  
☐ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present?	Yes <u>    </u> No <u>X</u>	Depth (inches): <u>    </u>
Water Table Present?	Yes <u>X</u> No <u>    </u>	Depth (inches): <u>12</u>
Saturation Present?	Yes <u>X</u> No <u>    </u>	Depth (inches): <u>10</u>

(includes capillary fringe)

**Wetland Hydrology Present?** Yes X No     

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

Wetland hydrology present.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 8/13/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 5 Sampling Point: 14-W-201208131242  
 Investigators: Mike Perkins Nate Nichols Section, Township, Range S 27 T 4 R 2  
 Landform (hillslope, terrace, etc.): Basin Local Relief (concave, convex, none): Concave Slope(%) 5  
 Subregion (LRR): LRR D Lat: 41.06 Long: -112.05 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Ford loam, shallow water table, 0 to 1 percent slopes NWI Classification: PEMC

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No        (If No, explain in Remarks)  
 Are Vegetation       , Soil       , Hydrology       , significantly disturbed? Are "Normal Circumstances" present? Yes X No         
 Are Vegetation       , Soil       , Hydrology       , naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No <u>      </u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No <u>      </u> <b>Wetland ID:</b> <u>14-W-61</u>
Hydric Soil Present? Yes <u>      </u> No <u>X</u>	
Wetland Hydrology Present? Yes <u>X</u> No <u>      </u>	

Remarks:  
 No hydric soils. Vegetation influenced by adjacent leaking groundwater well. Due to saturation to the surface and obligate vegetation, along with borderline soils, site is considered a wetland.

## VEGETATION— Use scientific names of plants.

Tree Stratum

Shrub Stratum

Herb Stratum (Plot size: 30 Ft )

	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
Eleocharis palustris	85	Y	OBL
Schoenoplectus pungens	10	N	OBL
Hordeum jubatum	5	N	FAC
	100	=Total Cover	

Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across all Strata: 1 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>95</u>	x 1 = <u>95</u>
FACW species <u>0</u>	x 2 = <u>0</u>
FAC species <u>5</u>	x 3 = <u>15</u>
FACU species <u>0</u>	x 4 = <u>0</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>100</u> (A)	<u>110</u> (B)

Prevalence Index = B/A = 1.10

### Hydrophytic Vegetation Indicators:

       Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
       Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
       Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No       

% Bare Ground in Herb Stratum 0 % Cover of Biotic Crust       

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation is hydrophytic.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 6	10YR	4.0 / 3	100				LOAM	
6 to 12	10YR	4.0 / 2	100				SILTY CLAY LOAM	
12 to 19	10YR	7.0 / 2	100				SILTY CLAY LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)           |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)       |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)   |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)   |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input type="checkbox"/> Depleted Matrix (F3)       |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)     |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)          |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |   |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- |   |
|---|
| <input type="checkbox"/> 1 cm Muck (A9) (LRR C)     |
| <input type="checkbox"/> 2 cm Muck (A10) (LRR B)    |
| <input type="checkbox"/> Reduced Vertic (F18)       |
| <input type="checkbox"/> Red Parent Material (TF2)  |
| <input type="checkbox"/> Other (Explain in Remarks) |

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_ No X

## Remarks:

Soil fails to indicate hydric conditions, though close to F3, Depleted Matrix.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input checked="" type="checkbox"/> Saturation (A3)                | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- |   |
|---|
| <input type="checkbox"/> Water Marks (B1) (Riverine)            |
| <input type="checkbox"/> Sediment Deposits (B2) (Riverine)      |
| <input type="checkbox"/> Drift Deposits (B3) (Riverine)         |
| <input type="checkbox"/> Drainage Patterns (B10)                |
| <input type="checkbox"/> Dry-Season Water Table (C2)            |
| <input type="checkbox"/> Crayfish Burrows (C8)                  |
| <input type="checkbox"/> Saturation Visible on Aerial Imag.(C9) |
| <input type="checkbox"/> Shallow Aquitard (D3)                  |
| <input checked="" type="checkbox"/> FAC-Neutral Test (D5)       |

**Field Observations:**

Surface Water Present?	Yes ____ No <u>X</u>	Depth (inches):	__
Water Table Present?	Yes <u>X</u> No ____	Depth (inches):	15
Saturation Present?	Yes <u>X</u> No ____	Depth (inches):	0

(includes capillary fringe)

**Wetland Hydrology Present?** Yes X No \_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

Adjacent to leaking groundwater well.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 5/7/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 5 Sampling Point: 14-W-201209211105  
 Investigators: Trent Toler Section, Township, Range S 22 T 4 R 2  
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): None Slope(%) 0  
 Subregion (LRR): LRR D Lat: 41.0643038314 Long: -112.04903838 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Ford loam, shallow water table, 0 to 1 percent slopes NWI Classification: PEMF  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No        (If No, explain in Remarks)  
 Are Vegetation       , Soil       , Hydrology       , significantly disturbed? Are "Normal Circumstances" present? Yes X No         
 Are Vegetation       , Soil       , Hydrology       , naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No <u>      </u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No <u>      </u> <b>Wetland ID:</b> <u>14-W-66</u>
Hydric Soil Present? Yes <u>X</u> No <u>      </u>	
Wetland Hydrology Present? Yes <u>X</u> No <u>      </u>	

Remarks:  
 Mixed wetland pasture with recent fill along west edge, and a paved trail and vegetation-filled ditch along north edge. Potential irrigation confoundment given the patchy condition of the wetland vegetation.

## VEGETATION— Use scientific names of plants.

	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
<u>Tree Stratum</u>			
<u>Shrub Stratum</u>			
<u>Herb Stratum</u> (Plot size: <u>30 Ft</u> )			
Phragmites australis	30	Y	FACW
Ambrosia artemisiifolia	25	Y	FACU
Hordeum jubatum	25	Y	FAC
Schoenoplectus pungens	15	N	OBL
Muhlenbergia asperifolia	5	N	FACW
Thinopyrum ponticum	3	N	UPL
	103	=Total Cover	

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 2 (A)  
 Total Number of Dominant Species Across all Strata: 3 (B)  
 Percent of Dominant Species That are OBL, FACW, or FAC: 66.7% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>15</u>	x 1 = <u>15</u>
FACW species <u>35</u>	x 2 = <u>70</u>
FAC species <u>25</u>	x 3 = <u>75</u>
FACU species <u>25</u>	x 4 = <u>100</u>
UPL species <u>3</u>	x 5 = <u>15</u>
Column Totals: <u>103</u> (A)	<u>275</u> (B)

Prevalence Index = B/A = 2.67

### Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
       Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
       Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No       

% Bare Ground in Herb Stratum 0 % Cover of Biotic Crust       

Remarks: (Include photo numbers here or on a separate sheet.)  
 Patchy hydrophytic and non-hydrophytic vegetation. A few scattered Russian olive saplings and trees throughout the field, but none close to data point.

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix			Redox Features				Texture	Remarks
	Color (moist)		%	Color (moist)		%	Type <sup>1</sup>		
0 to 10	10YR	3 / 2	80	Gley1 2.5/N	20	C	PL	SANDY CLAY LOAM	Mn also in matrix
10 to 15	10YR	4 / 2	95	Gley1 3/N	5	C	M	SANDY LOAM	
15 to 19	10YR	2 / 2	100					LOAMY SAND	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators:**

☐ Histosol (A1)☐ Histic Epipedon (A2)☐ Black Histic (A3)☐ Hydrogen Sulfide (A4)☐ Stratified Layers (A5) LRR C☐ 1 cm Muck (A9) LRR F D☐ Depleted Below Dark Surface (A11)☐ Thick Dark Surface (A12)☐ Sandy Mucky Mineral (S1)☐ Sandy Gleyed Matrix (S4)☐ Sandy Redox (S5)☐ Stripped Matrix (S6)☐ Loamy Mucky Mineral (F1)☐ Loamy Gleyed Matrix (F2)☐ Depleted Matrix (F3)☒ Redox Dark Surface (F6)☐ Depleted Dark Surface (F7)☐ Redox Depressions (F8)☐ Vernal Pools (F9)

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

☐ 1 cm Muck (A9) (LRR C)☐ 2 cm Muck (A10) (LRR B)☐ Reduced Vertic (F18)☐ Red Parent Material (TF2)☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: Depth (inches):

**Hydric Soil Present?** Yes ☒ No ☐

Remarks:

Manganese concentrations in 3/2 soil in first 10 in. meets hydric indicator F6, and also close to indicator A11.

HYDROLOGY

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

☐ Surface Water (A1)☐ High Water Table (A2)☒ Saturation (A3)☐ Water Marks (B1) (Nonriverine)☐ Sediment Deposits (B2) (Nonriverine)☐ Drift Deposits (B3) (Nonriverine)☐ Surface Soil Cracks (B6)☐ Inundation Visible on Aerial Imagery (B7)☐ Water-Stained Leaves (B9)☐ Salt Crust (B11)☐ Biotic Crust (B12)☐ Aquatic Fauna (B13)☐ Hydrogen Sulfide Odor (C1)☐ Oxidized Rhizospheres along Living Roots (C3)☐ Presence of Reduced Iron (C4)☐ Recent Iron Reduction in Tilled Soils (C6)☐ Thin Muck Surface (C7)☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

☐ Water Marks (B1) (Riverine)☐ Sediment Deposits (B2) (Riverine)☐ Drift Deposits (B3) (Riverine)☐ Drainage Patterns (B10)☒ Dry-Season Water Table (C2)☐ Crayfish Burrows (C8)☐ Saturation Visible on Aerial Imag.(C9)☐ Shallow Aquitard (D3)☐ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present? Yes ☐ No ☒ Depth (inches):

Water Table Present? Yes ☒ No ☐ Depth (inches): 

16

Saturation Present? Yes ☒ No ☐ Depth (inches): 

10

(includes capillary fringe)

**Wetland Hydrology Present?** Yes ☒ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Previous work in this field noted a high water table in May. Water table may be higher than recorded if allowed to settle longer. Meets primary wetland hydrology indicator A3.

US Army Corps of Engineers

HDR

Arid West – Version 2.0

# WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: WDC DGAC-09122016-4-IN City/County: Davis County Sampling Date: 9/12/2016  
 Applicant/Owner: UDOT State: Utah Sampling Point: DGAC-09122016-4-IN  
 Investigator(s): DG/AC Section, Township, Range: 27 4N 2W  
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): none Slope (%): 0%  
 Subregion (LRR): D Lat: 41.05665742 Long: -112.0537525 Datum: D WGS 1983  
 Soil Map Unit Name: Warm Springs fine sandy loam, 0 to 1 percent slopes NWI classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____	
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	
Remarks:  Sampled area is a wetland.	

## VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)  Total Number of Dominant Species Across All Strata: <u>1</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
_____ = Total Cover				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B)  Prevalence Index = B/A = _____
<b>Sapling/Shrub Stratum (Plot size: _____)</b> 1. _____ 2. _____ 3. _____ 4. _____ 5. _____ _____ = Total Cover				
<b>Herb Stratum (Plot size: <u>5 ft. radius</u>)</b> 1. <u>Distichlis spicata</u> <u>80%</u> <u>Yes</u> <u>FAC</u> 2. <u>Bassia hyssopifolia</u> <u>10%</u> <u></u> <u>FACU</u> 3. <u>Hordeum jubatum</u> <u>1%</u> <u></u> <u>FAC</u> 4. _____ 5. _____ 6. _____ 7. _____ 8. _____ _____ = Total Cover				
<b>Woody Vine Stratum (Plot size: _____)</b> 1. _____ 2. _____ _____ = Total Cover				
% Bare Ground in Herb Stratum <u>9%</u> % Cover of Biotic Crust _____				
Remarks:  Vegetation passes dominance test.				<b>Hydrophytic Vegetation Indicators:</b> <input checked="" type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.  <b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No _____



# SOIL

Sampling Point: DGAC-091

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-6	10YR 3/1	80%	10YR 5/2	15%	D	M	Loam	
			10YR 2/1	5%	C	PL		
6-12	10YR 3/3	100%					Loam	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) (**LRR C**)
- ☐ 1 cm Muck (A9) (**LRR D**)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)

- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☒ Redox Dark Surface (F6)
- ☒ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- ☐ 1 cm Muck (A9) (**LRR C**)
- ☐ 2 cm Muck (A10) (**LRR B**)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes ☒ No ☐

Remarks:

Soil profile fits F6 and F7 indicators.

# HYDROLOGY

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1) (**Nonriverine**)
- ☐ Sediment Deposits (B2) (**Nonriverine**)
- ☐ Drift Deposits (B3) (**Nonriverine**)
- ☒ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)

- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) (**Riverine**)
- ☐ Sediment Deposits (B2) (**Riverine**)
- ☐ Drift Deposits (B3) (**Riverine**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present? Yes ☐ No ☐ Depth (inches): \_\_\_\_\_

Water Table Present? Yes ☐ No ☐ Depth (inches): \_\_\_\_\_

Saturation Present? Yes ☐ No ☐ Depth (inches): \_\_\_\_\_  
(includes capillary fringe)

**Wetland Hydrology Present?** Yes ☒ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Hydrology indicator (B6) observed.

# WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: WDC DGAC-09122016-4-IN-2 City/County: Davis County Sampling Date: 9/12/2016  
 Applicant/Owner: UDOT State: Utah Sampling Point: DGAC-09122016-4-IN-2  
 Investigator(s): DG/AC Section, Township, Range: 27 4N 2W  
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): none Slope (%): 0%  
 Subregion (LRR): D Lat: 41.05736988 Long: -112.0536693 Datum: D WGS 1983  
 Soil Map Unit Name: Warm Springs fine sandy loam, shallow water table, 0 to 1 percent slope NWI classification: PEM1/USA

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)  
 Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐  
 Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Remarks: Sampled area is a wetland.	

## VEGETATION – Use scientific names of plants.

<b>Tree Stratum</b> (Plot size: _____) 1. _____ 2. _____ 3. _____ 4. _____ _____ = Total Cover <b>Sapling/Shrub Stratum</b> (Plot size: _____) 1. _____ 2. _____ 3. _____ 4. _____ 5. _____ _____ = Total Cover <b>Herb Stratum</b> (Plot size: <u>5 ft. radius</u> ) 1. <u>Distichlis spicata</u> 90% Yes FAC 2. <u>Hordeum jubatum</u> 2% FAC 3. <u>Agrostis exarata</u> 1% FACW 4. <u>Puccinellia nuttalliana</u> 5% FACW 5. <u>Atriplex micrantha</u> 1% NL 6. <u>Suaeda occidentalis</u> 1% FACW 7. _____ 8. _____ 100% = Total Cover <b>Woody Vine Stratum</b> (Plot size: _____) 1. _____ 2. _____ _____ = Total Cover % Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B) <b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____ <b>Hydrophytic Vegetation Indicators:</b> <input checked="" type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. <b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
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Remarks:

Extension from point DGAC-09122016-4-IN. Previous point was heavily grazed. This site is not grazed.

## SOIL

Sampling Point: DGAC-091

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-6	10YR 3/2	94%	10YR 6/2	1%	D	M	Loam	
			10YR 2/1	5%	C	M		
6-15	10YR 4/3	89%	10YR 6/4	1%	D	M	ClLoam	
			10YR 2/1	10%	D	M		

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                           | <input type="checkbox"/> Sandy Redox (S5)                   |
| <input type="checkbox"/> Histic Epipedon (A2)                    | <input type="checkbox"/> Stripped Matrix (S6)               |
| <input type="checkbox"/> Black Histic (A3)                       | <input type="checkbox"/> Loamy Mucky Mineral (F1)           |
| <input type="checkbox"/> Hydrogen Sulfide (A4)                   | <input type="checkbox"/> Loamy Gleyed Matrix (F2)           |
| <input type="checkbox"/> Stratified Layers (A5) ( <b>LRR C</b> ) | <input type="checkbox"/> Depleted Matrix (F3)               |
| <input type="checkbox"/> 1 cm Muck (A9) ( <b>LRR D</b> )         | <input checked="" type="checkbox"/> Redox Dark Surface (F6) |
| <input type="checkbox"/> Depleted Below Dark Surface (A11)       | <input type="checkbox"/> Depleted Dark Surface (F7)         |
| <input type="checkbox"/> Thick Dark Surface (A12)                | <input type="checkbox"/> Redox Depressions (F8)             |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)                | <input type="checkbox"/> Vernal Pools (F9)                  |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)                |   |

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- ☐ 1 cm Muck (A9) (**LRR C**)
- ☐ 2 cm Muck (A10) (**LRR B**)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes ☒ No ☐

Remarks:

Soil profile fits Redox Dark Surface (F6) indicator.

## HYDROLOGY

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                            | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                         | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                               | <input checked="" type="checkbox"/> Aquatic Invertebrates (B13)        |
| <input type="checkbox"/> Water Marks (B1) ( <b>Nonriverine</b> )       | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) ( <b>Nonriverine</b> ) | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) ( <b>Nonriverine</b> )    | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                      | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)     | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                     | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) (**Riverine**)
- ☐ Sediment Deposits (B2) (**Riverine**)
- ☐ Drift Deposits (B3) (**Riverine**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☒ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present? Yes ☐ No ☒ Depth (inches): \_\_\_\_\_

Water Table Present? Yes ☐ No ☒ Depth (inches): \_\_\_\_\_

Saturation Present? Yes ☐ No ☒ Depth (inches): \_\_\_\_\_  
(includes capillary fringe)

**Wetland Hydrology Present?** Yes ☒ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Hydrology indicator (B13) observed.

Project/Site: WDC DGAC-09122016-4-OUT City/County: Davis County Sampling Date: 9/12/2016  
Applicant/Owner: UDOT State: Utah Sampling Point: DGAC-09122016-4-OUT  
Investigator(s): DG/AC Section, Township, Range: 27 4N 2W  
Landform (hillslope, terrace, etc.): terrace/depression Local relief (concave, convex, none): concave Slope (%): 1%  
Subregion (LRR): D Lat: 41.05734264 Long: -112.053801 Datum: D WGS 1983  
Soil Map Unit Name: Warm Springs fine sandy loam, shallow water table, 0 to 1 percent slope NWI classification: PEM1/USA

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?      Yes _____ No <u>✓</u> Hydric Soil Present?                      Yes _____ No _____ Wetland Hydrology Present?            Yes _____ No <u>✓</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>✓</u>
Remarks:  No soil pit. Vegetation is strongly upland.	

<b>Tree Stratum</b> (Plot size: _____)				<b>Dominance Test worksheet:</b>	
1. _____				Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)	
2. _____				Total Number of Dominant Species Across All Strata: <u>1</u> (B)	
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)	
4. _____				<b>Prevalence Index worksheet:</b>	
_____ = Total Cover				Total % Cover of: _____ Multiply by: _____	
<b>Sapling/Shrub Stratum</b> (Plot size: _____)				OBL species _____ x 1 = _____	
1. _____				FACW species _____ x 2 = _____	
2. _____				FAC species <u>2</u> x 3 = <u>6</u>	
3. _____				FACU species <u>17</u> x 4 = <u>68</u>	
4. _____				UPL species <u>95</u> x 5 = <u>475</u>	
5. _____				Column Totals: <u>114</u> (A) <u>549</u> (B)	
_____ = Total Cover				Prevalence Index = B/A = <u>4.8</u>	
<b>Herb Stratum</b> (Plot size: <u>5 ft. radius</u> )				<b>Hydrophytic Vegetation Indicators:</b>	
1. <u>Thinopyrum intermedium</u> <u>75%</u> <u>Yes</u> <u>NL</u>				___ Dominance Test is >50%	
2. <u>Poa secunda</u> <u>15%</u> <u>_____</u> <u>FACU</u>				___ Prevalence Index is $\leq 3.0^1$	
3. <u>Cardaria draba</u> <u>10%</u> <u>_____</u> <u>NL</u>				___ Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)	
4. <u>Bromus tectorum</u> <u>10%</u> <u>_____</u> <u>NL</u>				___ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)	
5. <u>Descurainia species</u> <u>2%</u> <u>_____</u> <u>FACU?</u>				<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
6. <u>Lepidium latifolium</u> <u>2%</u> <u>_____</u> <u>FAC</u>				<b>Hydrophytic Vegetation Present?</b> Yes _____ No <u>✓</u>	
7. _____					
8. _____					
_____ <u>114%</u> = Total Cover					
<b>Woody Vine Stratum</b> (Plot size: _____)					
1. _____					
2. _____					
_____ = Total Cover					
% Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____					
Remarks:					
Upland community.					

## SOIL

Sampling Point: DGAC-091

[illegible]

## HYDROLOGY

Wetland Hydrology Indicators:		
Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (2 or more required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) ( <b>Riverine</b> )
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) ( <b>Riverine</b> )
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) ( <b>Riverine</b> )
<input type="checkbox"/> Water Marks (B1) ( <b>Nonriverine</b> )	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) ( <b>Nonriverine</b> )	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3) ( <b>Nonriverine</b> )	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <input type="checkbox"/> No <input type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input type="checkbox"/> No <input type="checkbox"/> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		
No hydrology indicators observed.		

# WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: WDC DGAC-09122016-5-IN City/County: Davis County Sampling Date: 9/12/2016  
 Applicant/Owner: UDOT State: Utah Sampling Point: DGAC-09122016-5-IN  
 Investigator(s): DG/AC Section, Township, Range: 27 4N 2W  
 Landform (hillslope, terrace, etc.): terrace/depression Local relief (concave, convex, none): concave Slope (%): 0%  
 Subregion (LRR): D Lat: 41.05994703 Long: -112.054082 Datum: D WGS 1983  
 Soil Map Unit Name: Warm Springs fine sandy loam, 0 to 1 percent slopes NWI classification: PEM1/USA

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)  
 Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐  
 Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Remarks: Sampled area is a wetland.	

## VEGETATION – Use scientific names of plants.

<b>Tree Stratum</b> (Plot size: _____) 1. _____ 2. _____ 3. _____ 4. _____ _____ = Total Cover <b>Sapling/Shrub Stratum</b> (Plot size: _____) 1. _____ 2. _____ 3. _____ 4. _____ 5. _____ _____ = Total Cover <b>Herb Stratum</b> (Plot size: <u>5 ft. radius</u> ) 1. <u>Puccinellia nuttalliana</u> <u>89%</u> <u>Yes</u> <u>FACW</u> 2. <u>Hordeum jubatum</u> <u>10%</u> <u></u> <u>FAC</u> 3. <u>Lactuca serriola</u> <u>1%</u> <u></u> <u>FACU</u> 4. _____ 5. _____ 6. _____ 7. _____ 8. _____ _____ = Total Cover <b>Woody Vine Stratum</b> (Plot size: _____) 1. _____ 2. _____ _____ = Total Cover % Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B) <b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____ <b>Hydrophytic Vegetation Indicators:</b> <input checked="" type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. <b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Remarks: Saline depression.	



## SOIL

Sampling Point: DGAC-091

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-7	10YR 3/2	90%	10YR 2/1	5%	C	M	ClLoam	
	10YR 5/4	5%						
7-14	10YR 3/3	90%	10YR 2/1	2%	C	M	LoSand	
	10YR 5/4	2%						

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                           | <input type="checkbox"/> Sandy Redox (S5)                   |
| <input type="checkbox"/> Histic Epipedon (A2)                    | <input type="checkbox"/> Stripped Matrix (S6)               |
| <input type="checkbox"/> Black Histic (A3)                       | <input type="checkbox"/> Loamy Mucky Mineral (F1)           |
| <input type="checkbox"/> Hydrogen Sulfide (A4)                   | <input type="checkbox"/> Loamy Gleyed Matrix (F2)           |
| <input type="checkbox"/> Stratified Layers (A5) ( <b>LRR C</b> ) | <input type="checkbox"/> Depleted Matrix (F3)               |
| <input type="checkbox"/> 1 cm Muck (A9) ( <b>LRR D</b> )         | <input checked="" type="checkbox"/> Redox Dark Surface (F6) |
| <input type="checkbox"/> Depleted Below Dark Surface (A11)       | <input type="checkbox"/> Depleted Dark Surface (F7)         |
| <input type="checkbox"/> Thick Dark Surface (A12)                | <input type="checkbox"/> Redox Depressions (F8)             |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)                | <input type="checkbox"/> Vernal Pools (F9)                  |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)                |   |

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- ☐ 1 cm Muck (A9) (**LRR C**)
- ☐ 2 cm Muck (A10) (**LRR B**)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes ☒ No ☐

Remarks:

Soil profile fits Redox Dark Surface (F6) indicator.

## HYDROLOGY

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                            | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                         | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                               | <input type="checkbox"/> Aquatic Invertebrates (B13)                   |
| <input type="checkbox"/> Water Marks (B1) ( <b>Nonriverine</b> )       | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) ( <b>Nonriverine</b> ) | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) ( <b>Nonriverine</b> )    | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input checked="" type="checkbox"/> Surface Soil Cracks (B6)           | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)     | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                     | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) (**Riverine**)
- ☐ Sediment Deposits (B2) (**Riverine**)
- ☐ Drift Deposits (B3) (**Riverine**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☒ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present? Yes ☐ No ☒ Depth (inches): \_\_\_\_\_

Water Table Present? Yes ☐ No ☒ Depth (inches): \_\_\_\_\_

Saturation Present? Yes ☐ No ☒ Depth (inches): \_\_\_\_\_  
(includes capillary fringe)

**Wetland Hydrology Present?** Yes ☒ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Hydrology indicator (B6) observed.

# WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: WDC DGAC-09122016-5-OUT City/County: Davis County Sampling Date: 9/12/2016  
 Applicant/Owner: UDOT State: Utah Sampling Point: DGAC-09122016-5-OUT  
 Investigator(s): DG/AC Section, Township, Range: 27 4N 2W  
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): none Slope (%): 0%  
 Subregion (LRR): D Lat: 41.05988888 Long: -112.054083 Datum: D WGS 1983  
 Soil Map Unit Name: Warm Springs fine sandy loam, 0 to 1 percent slopes NWI classification: PEM1/USA

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)  
 Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐  
 Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Hydric Soil Present? Yes <input type="checkbox"/> No <input type="checkbox"/>	
Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Remarks: Upland vegetation. Didn't sample soil.	

## VEGETATION – Use scientific names of plants.

<b>Tree Stratum</b> (Plot size: _____) 1. _____ 2. _____ 3. _____ 4. _____ _____ = Total Cover <b>Sapling/Shrub Stratum</b> (Plot size: _____) 1. _____ 2. _____ 3. _____ 4. _____ 5. _____ _____ = Total Cover <b>Herb Stratum</b> (Plot size: <u>5 ft. radius</u> ) 1. <u>Hordeum jubatum</u> <u>80%</u> <u>Yes</u> <u>FAC</u> 2. <u>Lactuca serriola</u> <u>20%</u> <u>Yes</u> <u>FACU</u> 3. _____ 4. _____ 5. _____ 6. _____ 7. _____ 8. _____ _____ = Total Cover <b>Woody Vine Stratum</b> (Plot size: _____) 1. _____ 2. _____ _____ = Total Cover % Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50%</u> (A/B) <b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species <u>80</u> x 3 = <u>240</u> FACU species <u>20</u> x 4 = <u>80</u> UPL species _____ x 5 = _____ Column Totals: <u>100</u> (A) <u>320</u> (B) Prevalence Index = B/A = <u>3.2</u> <b>Hydrophytic Vegetation Indicators:</b> ___ Dominance Test is >50% ___ Prevalence Index is ≤3.0 <sup>1</sup> ___ Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. <b>Hydrophytic Vegetation Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
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Remarks:  
Weedy upland area with Hordeum. Also beebplant, intermediate wheat, and sunflower in area.

## SOIL

Sampling Point: DGAC-091

[illegible]

## HYDROLOGY

Wetland Hydrology Indicators:		
Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (2 or more required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) ( <b>Riverine</b> )
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) ( <b>Riverine</b> )
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) ( <b>Riverine</b> )
<input type="checkbox"/> Water Marks (B1) ( <b>Nonriverine</b> )	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) ( <b>Nonriverine</b> )	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3) ( <b>Nonriverine</b> )	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present?    Yes <input type="checkbox"/> No <input type="checkbox"/> Depth (inches): _____ Water Table Present?    Yes <input type="checkbox"/> No <input type="checkbox"/> Depth (inches): _____ Saturation Present?    Yes <input type="checkbox"/> No <input type="checkbox"/> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:  No hydrology indicators observed.		

# WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: WDC DGAC-09132016-1-IN City/County: Davis County Sampling Date: 9/13/2016  
 Applicant/Owner: UDOT State: Utah Sampling Point: DGAC-09132016-1  
 Investigator(s): DG/AC Section, Township, Range: 27 4N 2W  
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): none Slope (%): 0%  
 Subregion (LRR): D Lat: 41.05912095 Long: -112.0516269 Datum: D WGS 1983  
 Soil Map Unit Name: Warm Springs fine sandy loam, 0 to 1 percent slopes NWI classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil ☒, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/>	
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	
Remarks: Saline meadow area in horse pasture. Problematic soils (high pH) assumed hydric in saline wetland based on vegetation community, hydrology indication, and landscape position.	

## VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)  Total Number of Dominant Species Across All Strata: <u>2</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
_____ = Total Cover				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B)  Prevalence Index = B/A = _____
<b>Sapling/Shrub Stratum</b> (Plot size: _____)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
_____ = Total Cover				<b>Hydrophytic Vegetation Indicators:</b> <input checked="" type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.  <b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No _____
<b>Herb Stratum</b> (Plot size: _____)				
1. <u>Distichlis spicata</u>	<u>72%</u>	<u>Yes</u>	<u>FAC</u>	
2. <u>Suaeda occidentalis</u>	<u>20%</u>	<u>Yes</u>	<u>FACW</u>	
3. <u>Puccinellia nuttalliana</u>	<u>3%</u>		<u>FACW</u>	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
_____ = Total Cover				
<b>Woody Vine Stratum</b> (Plot size: _____)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
_____ = Total Cover				
% Bare Ground in Herb Stratum <u>5%</u> % Cover of Biotic Crust _____				

Remarks:

Vegetation passes dominance test.

# SOIL

Sampling Point: DGAC-0914

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-3.5	10YR 3/2	100%					ClLoam	
3.5-6.5	10YR 3/2	95%	10YR 4/6	5%	C	M	ClLoam	
6.5-12	10YR 5/2	100%					SaLoam	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) (**LRR C**)
- ☐ 1 cm Muck (A9) (**LRR D**)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)

- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- ☐ 1 cm Muck (A9) (**LRR C**)
- ☐ 2 cm Muck (A10) (**LRR B**)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No ☒

Remarks:

Redox along root pores and in matrix. Close to F6. Problematic soil.

# HYDROLOGY

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1) (**Nonriverine**)
- ☐ Sediment Deposits (B2) (**Nonriverine**)
- ☐ Drift Deposits (B3) (**Nonriverine**)
- ☒ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)

- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☒ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) (**Riverine**)
- ☐ Sediment Deposits (B2) (**Riverine**)
- ☐ Drift Deposits (B3) (**Riverine**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☒ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present? Yes \_\_\_\_\_ No ☒ Depth (inches): \_\_\_\_\_

Water Table Present? Yes \_\_\_\_\_ No ☒ Depth (inches): \_\_\_\_\_

Saturation Present? Yes \_\_\_\_\_ No ☒ Depth (inches): \_\_\_\_\_  
(includes capillary fringe)

**Wetland Hydrology Present?** Yes ☒ No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

# WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: WDC DGAC-09132016-1-OUT City/County: Davis County Sampling Date: 9/13/2016  
 Applicant/Owner: UDOT State: Utah Sampling Point: DGAC-09132016-1-OUT  
 Investigator(s): DG/AC Section, Township, Range: 27 4N 2W  
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): convex Slope (%): 1%  
 Subregion (LRR): D Lat: 41.0590888 Long: -112.0514137 Datum: D WGS 1983  
 Soil Map Unit Name: Warm Springs fine sandy loam, 0 to 1 percent slopes NWI classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil ☒, or Hydrology ☒ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/>	
Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	
Remarks:  Small knoll in pasture.	

## VEGETATION – Use scientific names of plants.

<b>Tree Stratum</b> (Plot size: _____) 1. _____ 2. _____ 3. _____ 4. _____ _____ = Total Cover <b>Sapling/Shrub Stratum</b> (Plot size: _____) 1. _____ 2. _____ 3. _____ 4. _____ 5. _____ _____ = Total Cover <b>Herb Stratum</b> (Plot size: <u>5 ft. radius</u> ) 1. <u>Distichlis spicata</u> 90% Yes FAC 2. <u>Puccinellia nuttalliana</u> 5% FACW 3. <u>Cordylanthus maritimus</u> 5% OBL 4. _____ 5. _____ 6. _____ 7. _____ 8. _____ _____ = Total Cover <b>Woody Vine Stratum</b> (Plot size: _____) 1. _____ 2. _____ _____ = Total Cover % Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B) <b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____ <b>Hydrophytic Vegetation Indicators:</b> <input checked="" type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. <b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No _____
Remarks:  Vegetation passes dominance test.	



# SOIL

Sampling Point: DGAC-091

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-5	10YR 3/2	96%	7.5YR 4/4	2%			Loam	
			10YR 2/1	2%				
5-9.5	7.5YR 3/3	100%					Loam	
9.5-16	7.5YR 4/3	90%	10YR 2/1	10%	C	M	SaLoam	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) (**LRR C**)
- ☐ 1 cm Muck (A9) (**LRR D**)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)

- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- ☐ 1 cm Muck (A9) (**LRR C**)
- ☐ 2 cm Muck (A10) (**LRR B**)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No ☒

Remarks:

No hydric indicators observed in soil profile.

# HYDROLOGY

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1) (**Nonriverine**)
- ☐ Sediment Deposits (B2) (**Nonriverine**)
- ☐ Drift Deposits (B3) (**Nonriverine**)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)

- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) (**Riverine**)
- ☐ Sediment Deposits (B2) (**Riverine**)
- ☐ Drift Deposits (B3) (**Riverine**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☒ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present? Yes \_\_\_\_\_ No ☒ Depth (inches): \_\_\_\_\_

Water Table Present? Yes \_\_\_\_\_ No ☒ Depth (inches): \_\_\_\_\_

Saturation Present? Yes \_\_\_\_\_ No ☒ Depth (inches): \_\_\_\_\_  
(includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Dry site. No indicators observed.

# WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: WDC DGAC-09132016-2-IN City/County: Davis County Sampling Date: 9/13/2016  
 Applicant/Owner: UDOT State: Utah Sampling Point: DGAC-09132016-2-IN  
 Investigator(s): DG/AC Section, Township, Range: 27 4N 2W  
 Landform (hillslope, terrace, etc.): terrace/depression Local relief (concave, convex, none): concave Slope (%): 1%  
 Subregion (LRR): D Lat: 41.05833971 Long: -112.0522205 Datum: D WGS 1983  
 Soil Map Unit Name: Warm Springs fine sandy loam, 0 to 1 percent slopes NWI classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____	
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	
Remarks:  Sampled area is a wetland.	

## VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)  Total Number of Dominant Species Across All Strata: <u>1</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
_____ = Total Cover				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B)  Prevalence Index = B/A = _____
<b>Sapling/Shrub Stratum</b> (Plot size: _____)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
_____ = Total Cover				<b>Hydrophytic Vegetation Indicators:</b> <input checked="" type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.  <b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No _____
<b>Herb Stratum</b> (Plot size: <u>5 ft. radius</u> )				
1. <u>Agrostis gigantea</u>	<u>50%</u>		<u>FACW</u>	
2. <u>Carex praegracilis</u>	<u>100%</u>	<u>Yes</u>	<u>FACW</u>	
3. <u>Trifolium fragiferum</u>	<u>50%</u>		<u>FAC</u>	
4. <u>Polypogon monspeliensis</u>	<u>20%</u>		<u>FACW</u>	
5. <u>Hordeum jubatum</u>	<u>20%</u>		<u>FAC</u>	
6. <u>Elymus trachycaulus</u>	<u>20%</u>		<u>FACU</u>	
7. <u>Schoenoplectus pungens</u>	<u>3%</u>		<u>OBL</u>	
8. _____	_____	_____	_____	
_____ = Total Cover				
<b>Woody Vine Stratum</b> (Plot size: _____)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
_____ = Total Cover				
% Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____				
Remarks:  Facultative-dominant community passes dominance test.				

# SOIL

Sampling Point: DGAC-091

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-3	10YR 3/3	100%					SiLoam	
3-5	10YR 4/1	60%	10YR 5/2	30%	D	M	SiLoam	
			10YR 2/1	10%	RM	M		
5-16	10YR 5/2	80%	10YR 2/1	15%	RM	M	SaLoam	
			7.5YR 4/6	5%	C	PL		

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) (**LRR C**)
- ☐ 1 cm Muck (A9) (**LRR D**)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)

- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☒ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- ☐ 1 cm Muck (A9) (**LRR C**)
- ☐ 2 cm Muck (A10) (**LRR B**)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present? Yes ☒ No ☐**

Remarks:

Soil profile fits Depleted Matrix (F3) indicator.

# HYDROLOGY

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1) (**Nonriverine**)
- ☐ Sediment Deposits (B2) (**Nonriverine**)
- ☐ Drift Deposits (B3) (**Nonriverine**)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☒ Water-Stained Leaves (B9)

- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☒ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) (**Riverine**)
- ☐ Sediment Deposits (B2) (**Riverine**)
- ☐ Drift Deposits (B3) (**Riverine**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☒ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present? Yes ☐ No ☒ Depth (inches): \_\_\_\_\_

Water Table Present? Yes ☐ No ☒ Depth (inches): \_\_\_\_\_

Saturation Present? Yes ☐ No ☒ Depth (inches): \_\_\_\_\_  
(includes capillary fringe)

**Wetland Hydrology Present? Yes ☒ No ☐**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Soil moist to surface.

# WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: WDC DGAC-09132016-2-IN-2 City/County: Davis County Sampling Date: 9/13/2016  
 Applicant/Owner: UDOT State: Utah Sampling Point: DGAC-09132016-2  
 Investigator(s): DG/AC Section, Township, Range: 27 4N 2W  
 Landform (hillslope, terrace, etc.): terrace/depression Local relief (concave, convex, none): concave Slope (%): 2%  
 Subregion (LRR): D Lat: 41.05831855 Long: -112.0521152 Datum: D WGS 1983  
 Soil Map Unit Name: Warm Springs fine sandy loam, 0 to 1 percent slopes NWI classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____	
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	
Remarks:  Sampled area is a wetland.	

## VEGETATION – Use scientific names of plants.

<b>Tree Stratum</b> (Plot size: _____) 1. _____ 2. _____ 3. _____ 4. _____ _____ = Total Cover <b>Sapling/Shrub Stratum</b> (Plot size: _____) 1. _____ 2. _____ 3. _____ 4. _____ 5. _____ _____ = Total Cover <b>Herb Stratum</b> (Plot size: <u>5 ft. radius</u> ) 1. <u>Hordeum jubatum</u> <u>200%</u> Yes <u>FAC</u> 2. <u>Chenopodium album</u> <u>5%</u> <u>FACU</u> 3. <u>Carex praegracilis</u> <u>80%</u> Yes <u>FACW</u> 4. <u>Distichlis spicata</u> <u>80%</u> Yes <u>FAC</u> 5. <u>Poa pratensis</u> <u>15%</u> <u>FAC</u> 6. <u>Trifolium fragiferum</u> <u>20%</u> <u>FAC</u> 7. _____ 8. _____ _____ = Total Cover <b>Woody Vine Stratum</b> (Plot size: _____) 1. _____ 2. _____ _____ = Total Cover % Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B) <b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____ <b>Hydrophytic Vegetation Indicators:</b> <input checked="" type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. <b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No _____
Remarks:  Vegetation passes dominance test.	

# SOIL

Sampling Point: DGAC-0914

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-4	10YR 3/3	100%					Loam	
4-8	10YR 3/2	100%					Loam	
8-16	10YR 5/2	90%	10YR 6/2	5%			Loam	
			10YR 4/6	5%				

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

- |  |  |
|--|--|
| <input type="checkbox"/> Histosol (A1)                           | <input type="checkbox"/> Sandy Redox (S5)                |
| <input type="checkbox"/> Histic Epipedon (A2)                    | <input type="checkbox"/> Stripped Matrix (S6)            |
| <input type="checkbox"/> Black Histic (A3)                       | <input type="checkbox"/> Loamy Mucky Mineral (F1)        |
| <input type="checkbox"/> Hydrogen Sulfide (A4)                   | <input type="checkbox"/> Loamy Gleyed Matrix (F2)        |
| <input type="checkbox"/> Stratified Layers (A5) ( <b>LRR C</b> ) | <input checked="" type="checkbox"/> Depleted Matrix (F3) |
| <input type="checkbox"/> 1 cm Muck (A9) ( <b>LRR D</b> )         | <input type="checkbox"/> Redox Dark Surface (F6)         |
| <input type="checkbox"/> Depleted Below Dark Surface (A11)       | <input type="checkbox"/> Depleted Dark Surface (F7)      |
| <input type="checkbox"/> Thick Dark Surface (A12)                | <input type="checkbox"/> Redox Depressions (F8)          |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)                | <input type="checkbox"/> Vernal Pools (F9)               |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)                |  |

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- ☐ 1 cm Muck (A9) (**LRR C**)
- ☐ 2 cm Muck (A10) (**LRR B**)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present? Yes ☒ No ☐**

Remarks:

Soil profile fits Depleted Matrix (F3) indicator.

# HYDROLOGY

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                            | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                         | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                               | <input checked="" type="checkbox"/> Aquatic Invertebrates (B13)        |
| <input type="checkbox"/> Water Marks (B1) ( <b>Nonriverine</b> )       | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) ( <b>Nonriverine</b> ) | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) ( <b>Nonriverine</b> )    | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                      | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)     | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                     | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) (**Riverine**)
- ☐ Sediment Deposits (B2) (**Riverine**)
- ☐ Drift Deposits (B3) (**Riverine**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☒ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present? Yes ☐ No ☐ Depth (inches): \_\_\_\_\_

Water Table Present? Yes ☐ No ☐ Depth (inches): \_\_\_\_\_

Saturation Present? Yes ☐ No ☐ Depth (inches): \_\_\_\_\_  
(includes capillary fringe)

**Wetland Hydrology Present? Yes ☒ No ☐**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Hydrology indicator (B13) observed.

# WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: WDC DGAC-09132016-2-OUT City/County: Davis County Sampling Date: 9/13/2016  
 Applicant/Owner: UDOT State: Utah Sampling Point: DGAC-09132016-2-OUT  
 Investigator(s): DG/AC Section, Township, Range: 27 4N 2W  
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): convex Slope (%): 1%  
 Subregion (LRR): D Lat: 41.05844419 Long: -112.0522987 Datum: D WGS 1983  
 Soil Map Unit Name: Warm Springs fine sandy loam, 0 to 1 percent slopes NWI classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Hydric Soil Present? Yes _____ No _____	
Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	
Remarks: Upland knoll with intermediate wheat grass. Didn't sample soils given upland vegetation.	

## VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
_____ = Total Cover				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species <u>2</u> x 2 = <u>4</u> FAC species <u>3</u> x 3 = <u>9</u> FACU species _____ x 4 = _____ UPL species <u>95</u> x 5 = <u>475</u> Column Totals: _____ (A) <u>488</u> (B) Prevalence Index = B/A = <u>4.88</u>
<b>Sapling/Shrub Stratum (Plot size: _____)</b> 1. _____ 2. _____ 3. _____ 4. _____ 5. _____ _____ = Total Cover				
<b>Herb Stratum (Plot size: <u>5 ft. radius</u>)</b> 1. <u>Thinopyrum intermedium</u> <u>95%</u> <u>Yes</u> <u>NL</u> 2. <u>Carex praegracilis</u> <u>2%</u> <u></u> <u>FACW</u> 3. <u>Distichlis spicata</u> <u>2%</u> <u></u> <u>FACW</u> 4. <u>Hordeum jubatum</u> <u>1%</u> <u></u> <u>FAC</u> 5. _____ 6. _____ 7. _____ 8. _____ _____ = Total Cover				
<b>Woody Vine Stratum (Plot size: _____)</b> 1. _____ 2. _____ _____ = Total Cover				
% Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____				
Remarks: Vegetation is not hydrophytic.				<b>Hydrophytic Vegetation Indicators:</b> ___ Dominance Test is >50% ___ Prevalence Index is ≤3.0 <sup>1</sup> ___ Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.  <b>Hydrophytic Vegetation Present?</b> Yes _____ No <input checked="" type="checkbox"/>



## SOIL

Sampling Point: DGAC-091

[illegible]

## HYDROLOGY

Wetland Hydrology Indicators:		
Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (2 or more required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) ( <b>Riverine</b> )
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) ( <b>Riverine</b> )
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) ( <b>Riverine</b> )
<input type="checkbox"/> Water Marks (B1) ( <b>Nonriverine</b> )	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) ( <b>Nonriverine</b> )	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3) ( <b>Nonriverine</b> )	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present?    Yes <input type="checkbox"/> No <input type="checkbox"/> Depth (inches): _____ Water Table Present?    Yes <input type="checkbox"/> No <input type="checkbox"/> Depth (inches): _____ Saturation Present?    Yes <input type="checkbox"/> No <input type="checkbox"/> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		
Dry site. No indicators observed.		

# WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: WDC MNAC-09022016-1-IN City/County: Davis County Sampling Date: 9/2/2016  
 Applicant/Owner: UDOT State: Utah Sampling Point: MNAC-09022016-1  
 Investigator(s): MN/AC Section, Township, Range: 27 4N 2W  
 Landform (hillslope, terrace, etc.): terrace/depression Local relief (concave, convex, none): concave Slope (%): 1%  
 Subregion (LRR): D Lat: 41.05651032 Long: -112.0518967 Datum: D WGS 1983  
 Soil Map Unit Name: Warm Springs fine sandy loam, shallow water table, 0 to 1 percent slope NWI classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____	
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	
Remarks:  Inundated wetland area.	

## VEGETATION – Use scientific names of plants.

<b>Tree Stratum</b> (Plot size: _____) 1. _____ 2. _____ 3. _____ 4. _____ _____ = Total Cover <b>Sapling/Shrub Stratum</b> (Plot size: _____) 1. _____ 2. _____ 3. _____ 4. _____ 5. _____ _____ = Total Cover <b>Herb Stratum</b> (Plot size: <u>5 ft. radius</u> ) 1. <u>Juncus arcticus</u> 90% Yes FACW 2. <u>Schoenoplectus pungens</u> 5% OBL 3. <u>Carex praegracilis</u> 5% FACW 4. _____ 5. _____ 6. _____ 7. _____ 8. _____ 100% = Total Cover <b>Woody Vine Stratum</b> (Plot size: _____) 1. _____ 2. _____ _____ = Total Cover % Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B) <b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____ <b>Hydrophytic Vegetation Indicators:</b> <input checked="" type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. <b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No _____
Remarks:	

# SOIL

Sampling Point: MNAC-090

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-5	10YR 3/1	100%					Muck	many roots
5-9	10YR 3/2	100%					SaLoam	
9-15	10YR 4/3	90%	10YR 2/1	10%	C	PL	LoSand	black along pore linings

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

- |   |   |
|---|---|
| <input type="checkbox"/> Histosol (A1)                              | <input type="checkbox"/> Sandy Redox (S5)           |
| <input type="checkbox"/> Histic Epipedon (A2)                       | <input type="checkbox"/> Stripped Matrix (S6)       |
| <input type="checkbox"/> Black Histic (A3)                          | <input type="checkbox"/> Loamy Mucky Mineral (F1)   |
| <input type="checkbox"/> Hydrogen Sulfide (A4)                      | <input type="checkbox"/> Loamy Gleyed Matrix (F2)   |
| <input type="checkbox"/> Stratified Layers (A5) ( <b>LRR C</b> )    | <input type="checkbox"/> Depleted Matrix (F3)       |
| <input checked="" type="checkbox"/> 1 cm Muck (A9) ( <b>LRR D</b> ) | <input type="checkbox"/> Redox Dark Surface (F6)    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11)          | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12)                   | <input type="checkbox"/> Redox Depressions (F8)     |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)                   | <input type="checkbox"/> Vernal Pools (F9)          |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)                   |   |

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- ☐ 1 cm Muck (A9) (**LRR C**)
- ☐ 2 cm Muck (A10) (**LRR B**)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present? Yes ☒ No ☐**

Remarks:

# HYDROLOGY

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                            | <input type="checkbox"/> Salt Crust (B11)                              |
| <input checked="" type="checkbox"/> High Water Table (A2)              | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input checked="" type="checkbox"/> Saturation (A3)                    | <input checked="" type="checkbox"/> Aquatic Invertebrates (B13)        |
| <input type="checkbox"/> Water Marks (B1) ( <b>Nonriverine</b> )       | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) ( <b>Nonriverine</b> ) | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) ( <b>Nonriverine</b> )    | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                      | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)     | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                     | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) (**Riverine**)
- ☐ Sediment Deposits (B2) (**Riverine**)
- ☐ Drift Deposits (B3) (**Riverine**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☒ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present? Yes ☐ No ☒ Depth (inches): \_\_\_\_\_

Water Table Present? Yes ☒ No ☐ Depth (inches): \_\_\_\_\_

Saturation Present? Yes ☒ No ☐ Depth (inches): \_\_\_\_\_  
(includes capillary fringe)

**Wetland Hydrology Present? Yes ☒ No ☐**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

# WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: WDC MNAC-09022016-1-OUT City/County: Davis County Sampling Date: 9/2/2016  
 Applicant/Owner: UDOT State: Utah Sampling Point: MNAC-09022016-1-OUT  
 Investigator(s): MN/AC Section, Township, Range: 27 4N 2W  
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): none Slope (%): 1%  
 Subregion (LRR): D Lat: 41.05661953 Long: -112.0520354 Datum: D WGS 1983  
 Soil Map Unit Name: Warm Springs fine sandy loam, shallow water table, 0 to 1 percent slope NWI classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____	
Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	
Remarks: Apparent transition zone between inundated wetland and upland with wheatgrass.	

## VEGETATION – Use scientific names of plants.

<b>Tree Stratum</b> (Plot size: _____) 1. _____ 2. _____ 3. _____ 4. _____ _____ = Total Cover <b>Sapling/Shrub Stratum</b> (Plot size: _____) 1. _____ 2. _____ 3. _____ 4. _____ 5. _____ _____ = Total Cover <b>Herb Stratum</b> (Plot size: <u>5 ft. radius</u> ) 1. <u>Distichlis spicata</u> 9% FAC 2. <u>Carex praegracilis</u> 80% Yes FACW 3. <u>Juncus arcticus</u> 9% FACW 4. <u>Dipsacus fullonum</u> 1% FAC 5. <u>Thinopyrum intermedium</u> 1% FAC 6. _____ 7. _____ 8. _____ _____ = Total Cover <b>Woody Vine Stratum</b> (Plot size: _____) 1. _____ 2. _____ _____ = Total Cover % Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B) <b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____ <b>Hydrophytic Vegetation Indicators:</b> <input checked="" type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. <b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No _____
Remarks:	

# SOIL

Sampling Point: MNAC-090

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-2	7.5YR 2.5/3	100%						Peat
2-9	10YR 3/2	100%					SaLoam	
9-14	10YR 4/2	97%	10YR 4/6	3%	C	M	SaClLoam	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) (**LRR C**)
- ☐ 1 cm Muck (A9) (**LRR D**)
- ☒ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)

- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- ☐ 1 cm Muck (A9) (**LRR C**)
- ☐ 2 cm Muck (A10) (**LRR B**)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes ☒ No ☐

Remarks:

# HYDROLOGY

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1) (**Nonriverine**)
- ☐ Sediment Deposits (B2) (**Nonriverine**)
- ☐ Drift Deposits (B3) (**Nonriverine**)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)

- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) (**Riverine**)
- ☐ Sediment Deposits (B2) (**Riverine**)
- ☐ Drift Deposits (B3) (**Riverine**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present? Yes ☐ No ☐ Depth (inches): \_\_\_\_\_

Water Table Present? Yes ☐ No ☐ Depth (inches): \_\_\_\_\_

Saturation Present? Yes ☐ No ☐ Depth (inches): \_\_\_\_\_  
(includes capillary fringe)

**Wetland Hydrology Present?** Yes ☐ No ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Probably transition zone between inundated wetland and upland with wheatgrass.

# WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: WDC MNAC-09022016-2-IN City/County: Davis County Sampling Date: 9/2/2016  
 Applicant/Owner: UDOT State: Utah Sampling Point: MNAC-09022016-2-IN  
 Investigator(s): MN/AC Section, Township, Range: 27 4N 2W  
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): concave Slope (%): 0%  
 Subregion (LRR): D Lat: 41.05727781 Long: -112.0525846 Datum: D WGS 1983  
 Soil Map Unit Name: Warm Springs fine sandy loam, shallow water table, 0 to 1 percent slope NWI classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____	
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	
Remarks:	

## VEGETATION – Use scientific names of plants.

<b>Tree Stratum</b> (Plot size: _____) 1. _____ 2. _____ 3. _____ 4. _____ _____ = Total Cover <b>Sapling/Shrub Stratum</b> (Plot size: _____) 1. _____ 2. _____ 3. _____ 4. _____ 5. _____ _____ = Total Cover <b>Herb Stratum</b> (Plot size: <u>5 ft. radius</u> ) 1. <u>Distichlis spicata</u> 50% Yes FAC 2. <u>Suaeda occidentalis</u> 50% Yes FACW 3. _____ 4. _____ 5. _____ 6. _____ 7. _____ 8. _____ _____ = Total Cover <b>Woody Vine Stratum</b> (Plot size: _____) 1. _____ 2. _____ _____ = Total Cover % Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B) <b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____ <b>Hydrophytic Vegetation Indicators:</b> <input checked="" type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. <b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No _____
Remarks:	



# SOIL

Sampling Point: MNAC-090

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-2	10YR 4/1	10%	10YR 2/1	3%	C	M	Clay	
	2.5Y 8/2	42%	10YR 5/8	3%	C	M		
	7.5Y 5/4	42%						
2-10	10YR 4/2	99%	10YR 5/4	1%	C	M	ClLoam	
10-14	7.5YR 4/2	100%						

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) (**LRR C**)
- ☐ 1 cm Muck (A9) (**LRR D**)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)

- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☒ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- ☐ 1 cm Muck (A9) (**LRR C**)
- ☐ 2 cm Muck (A10) (**LRR B**)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present? Yes ☒ No ☐**

Remarks:

# HYDROLOGY

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1) (**Nonriverine**)
- ☐ Sediment Deposits (B2) (**Nonriverine**)
- ☐ Drift Deposits (B3) (**Nonriverine**)
- ☒ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)

- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) (**Riverine**)
- ☐ Sediment Deposits (B2) (**Riverine**)
- ☐ Drift Deposits (B3) (**Riverine**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☒ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present? Yes ☐ No ☒ Depth (inches): \_\_\_\_\_

Water Table Present? Yes ☐ No ☒ Depth (inches): \_\_\_\_\_

Saturation Present? Yes ☐ No ☒ Depth (inches): \_\_\_\_\_  
(includes capillary fringe)

**Wetland Hydrology Present? Yes ☒ No ☐**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

# WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: WDC MNAC-09022016-2-OUT City/County: Davis County Sampling Date: 9/2/2016  
 Applicant/Owner: UDOT State: Utah Sampling Point: MNAC-09022016-2-OUT  
 Investigator(s): MN/AC Section, Township, Range: 27 4N 2W  
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): none Slope (%): 1%  
 Subregion (LRR): D Lat: 41.05723418 Long: -112.0524982 Datum: D WGS 1983  
 Soil Map Unit Name: Warm Springs fine sandy loam, shallow water table, 0 to 1 percent slope NWI classification: PEM1C

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)  
 Are Vegetation ☒, Soil ☒, or Hydrology ☒ significantly disturbed? Are "Normal Circumstances" present? Yes ☐ No ☒  
 Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
Remarks:  Wetland appears to have been filled and tilled. Upland vegetation. Very prominent redox in soils.			

## VEGETATION – Use scientific names of plants.

<b>Tree Stratum</b> (Plot size: _____) 1. _____ 2. _____ 3. _____ 4. _____ _____ = Total Cover <b>Sapling/Shrub Stratum</b> (Plot size: _____) 1. _____ 2. _____ 3. _____ 4. _____ 5. _____ _____ = Total Cover <b>Herb Stratum</b> (Plot size: <u>5 ft. radius</u> ) 1. <u>Thinopyrum intermedium</u> 30% Yes NL 2. <u>Bromus tectorum</u> 20% Yes NL 3. <u>Atriplex micrantha</u> 5% NL 4. <u>Bromus racemosus</u> 5% NL 5. _____ 6. _____ 7. _____ 8. _____ _____ 60% = Total Cover <b>Woody Vine Stratum</b> (Plot size: _____) 1. _____ 2. _____ _____ = Total Cover % Bare Ground in Herb Stratum <u>40%</u> % Cover of Biotic Crust _____	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0%</u> (A/B) <b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species <u>60</u> x 5 = <u>300</u> Column Totals: <u>60</u> (A) <u>300</u> (B) Prevalence Index = B/A = <u>5</u> <b>Hydrophytic Vegetation Indicators:</b> ___ Dominance Test is >50% ___ Prevalence Index is ≤3.0 <sup>1</sup> ___ Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. <b>Hydrophytic Vegetation Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Remarks:	

# SOIL

Sampling Point: MNAC-090

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-1	10YR 3/2	100%					SaClLoam	many roots
1-6	10YR 3/2	93%	10YR 4/6	5%	C	PL	SaLoam	
	10YR 6/4	2%						
6-14	10YR 3/2	100%						

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                           | <input type="checkbox"/> Sandy Redox (S5)                   |
| <input type="checkbox"/> Histic Epipedon (A2)                    | <input type="checkbox"/> Stripped Matrix (S6)               |
| <input type="checkbox"/> Black Histic (A3)                       | <input type="checkbox"/> Loamy Mucky Mineral (F1)           |
| <input type="checkbox"/> Hydrogen Sulfide (A4)                   | <input type="checkbox"/> Loamy Gleyed Matrix (F2)           |
| <input type="checkbox"/> Stratified Layers (A5) ( <b>LRR C</b> ) | <input type="checkbox"/> Depleted Matrix (F3)               |
| <input type="checkbox"/> 1 cm Muck (A9) ( <b>LRR D</b> )         | <input checked="" type="checkbox"/> Redox Dark Surface (F6) |
| <input type="checkbox"/> Depleted Below Dark Surface (A11)       | <input type="checkbox"/> Depleted Dark Surface (F7)         |
| <input type="checkbox"/> Thick Dark Surface (A12)                | <input type="checkbox"/> Redox Depressions (F8)             |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)                | <input type="checkbox"/> Vernal Pools (F9)                  |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)                |   |

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- ☐ 1 cm Muck (A9) (**LRR C**)
- ☐ 2 cm Muck (A10) (**LRR B**)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present? Yes ☒ No ☐**

Remarks:

# HYDROLOGY

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one required; check all that apply)

- |  |   |
|--|---|
| <input type="checkbox"/> Surface Water (A1)                            | <input type="checkbox"/> Salt Crust (B11)   |
| <input type="checkbox"/> High Water Table (A2)                         | <input type="checkbox"/> Biotic Crust (B12)                                       |
| <input type="checkbox"/> Saturation (A3)                               | <input type="checkbox"/> Aquatic Invertebrates (B13)                              |
| <input type="checkbox"/> Water Marks (B1) ( <b>Nonriverine</b> )       | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                               |
| <input type="checkbox"/> Sediment Deposits (B2) ( <b>Nonriverine</b> ) | <input checked="" type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) ( <b>Nonriverine</b> )    | <input type="checkbox"/> Presence of Reduced Iron (C4)                            |
| <input type="checkbox"/> Surface Soil Cracks (B6)                      | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)               |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)     | <input type="checkbox"/> Thin Muck Surface (C7)                                   |
| <input type="checkbox"/> Water-Stained Leaves (B9)                     | <input type="checkbox"/> Other (Explain in Remarks)                               |

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) (**Riverine**)
- ☐ Sediment Deposits (B2) (**Riverine**)
- ☐ Drift Deposits (B3) (**Riverine**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present? Yes ☐ No ☐ Depth (inches): \_\_\_\_\_

Water Table Present? Yes ☐ No ☐ Depth (inches): \_\_\_\_\_

Saturation Present? Yes ☐ No ☐ Depth (inches): \_\_\_\_\_  
(includes capillary fringe)

**Wetland Hydrology Present? Yes ☒ No ☐**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

# WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: WDC MP-09142016-1-IN City/County: Davis County Sampling Date: 9/14/2016  
 Applicant/Owner: UDOT State: Utah Sampling Point: MP-09142016  
 Investigator(s): MP Section, Township, Range: 26 4N 2W  
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): none Slope (%): 1%  
 Subregion (LRR): D Lat: 41.05780411 Long: -112.043735 Datum: D WGS 1983  
 Soil Map Unit Name: Ford loam, 0 to 1 percent slopes NWI classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____	
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	
Remarks:  Wet meadow pasture, still quite green with active irrigation.	

## VEGETATION – Use scientific names of plants.

<b>Tree Stratum</b> (Plot size: _____) 1. _____ 2. _____ 3. _____ 4. _____ _____ = Total Cover <b>Sapling/Shrub Stratum</b> (Plot size: _____) 1. _____ 2. _____ 3. _____ 4. _____ 5. _____ _____ = Total Cover <b>Herb Stratum</b> (Plot size: <u>5 ft. radius</u> ) 1. <u>Distichlis spicata</u> <u>80%</u> <u>Yes</u> <u>FAC</u> 2. <u>Hordeum jubatum</u> <u>5%</u> <u></u> <u>FAC</u> 3. <u>Suaeda occidentalis</u> <u>5%</u> <u></u> <u>FACW</u> 4. _____ 5. _____ 6. _____ 7. _____ 8. _____ _____ <u>90%</u> = Total Cover <b>Woody Vine Stratum</b> (Plot size: _____) 1. _____ 2. _____ _____ = Total Cover % Bare Ground in Herb Stratum <u>10%</u> % Cover of Biotic Crust _____	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B) <b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____ <b>Hydrophytic Vegetation Indicators:</b> <input checked="" type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. <b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No _____
Remarks:  Salt grass dominant in plot. Also meadow barley, strawberry clover, spikerush, and 3-square.	

# SOIL

Sampling Point: MP-091424

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-3	10YR 4/3	100%					ClLoam	
3-10	10YR 3/2	95%	10YR 6/2	5%	D	M	SiSaLoam	
10-16	10YR 5/2	95%	10YR 5/4	5%	C	M	SiSaLoam	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) (**LRR C**)
- ☐ 1 cm Muck (A9) (**LRR D**)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)

- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☒ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- ☐ 1 cm Muck (A9) (**LRR C**)
- ☐ 2 cm Muck (A10) (**LRR B**)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes ☒ No ☐

Remarks:

# HYDROLOGY

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☒ Saturation (A3)
- ☐ Water Marks (B1) (**Nonriverine**)
- ☐ Sediment Deposits (B2) (**Nonriverine**)
- ☐ Drift Deposits (B3) (**Nonriverine**)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)

- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) (**Riverine**)
- ☐ Sediment Deposits (B2) (**Riverine**)
- ☐ Drift Deposits (B3) (**Riverine**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☒ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present? Yes ☐ No ☒ Depth (inches): \_\_\_\_\_

Water Table Present? Yes ☐ No ☒ Depth (inches): \_\_\_\_\_

Saturation Present? Yes ☒ No ☐ Depth (inches): 10  
(includes capillary fringe)

**Wetland Hydrology Present?** Yes ☒ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Wet meadow pasture with flood irrigation observed.

# WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: WDC MP-09142016-1-OUT City/County: Davis County Sampling Date: 9/14/2016  
 Applicant/Owner: UDOT State: Utah Sampling Point: MP-09142016  
 Investigator(s): MP Section, Township, Range: 26 4N 2W  
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): convex Slope (%): 1%  
 Subregion (LRR): D Lat: 41.05803792 Long: -112.0437041 Datum: D WGS 1983  
 Soil Map Unit Name: Ford loam, 0 to 1 percent slopes NWI classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/>	
Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	
Remarks: Sampling point upslope and north of wetland boundary.	

## VEGETATION – Use scientific names of plants.

<b>Tree Stratum</b> (Plot size: _____) 1. _____ 2. _____ 3. _____ 4. _____ _____ = Total Cover <b>Sapling/Shrub Stratum</b> (Plot size: _____) 1. _____ 2. _____ 3. _____ 4. _____ 5. _____ _____ = Total Cover <b>Herb Stratum</b> (Plot size: <u>5 ft. radius</u> ) 1. <u>Atriplex micrantha</u> <u>20%</u> <u>Yes</u> <u>NL</u> 2. <u>Bassia scoparia</u> <u>10%</u> <u></u> <u>FAC</u> 3. <u>Distichlis spicata</u> <u>25%</u> <u>Yes</u> <u>FAC</u> 4. <u>Festuca arundinacea</u> <u>25%</u> <u>Yes</u> <u>FACU</u> 5. <u>Hordeum jubatum</u> <u>5%</u> <u></u> <u>FAC</u> 6. _____ 7. _____ 8. _____ _____ = Total Cover <b>Woody Vine Stratum</b> (Plot size: _____) 1. _____ 2. _____ _____ = Total Cover % Bare Ground in Herb Stratum <u>15%</u> % Cover of Biotic Crust _____	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>33%</u> (A/B) <b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species <u>40</u> x 3 = <u>120</u> FACU species <u>25</u> x 4 = <u>100</u> UPL species <u>20</u> x 5 = <u>100</u> Column Totals: <u>85</u> (A) <u>320</u> (B) Prevalence Index = B/A = <u>3.77</u> <b>Hydrophytic Vegetation Indicators:</b> ___ Dominance Test is >50% ___ Prevalence Index is ≤3.0 <sup>1</sup> ___ Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. <b>Hydrophytic Vegetation Present?</b> Yes _____ No <input checked="" type="checkbox"/>
Remarks:	



## SOIL

Sampling Point: MP-09142

[illegible]

## HYDROLOGY

Wetland Hydrology Indicators:		
Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (2 or more required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) ( <b>Riverine</b> )
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) ( <b>Riverine</b> )
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) ( <b>Riverine</b> )
<input type="checkbox"/> Water Marks (B1) ( <b>Nonriverine</b> )	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) ( <b>Nonriverine</b> )	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3) ( <b>Nonriverine</b> )	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

# WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: WDC MPMNAC-08302016-1-IN City/County: Davis County Sampling Date: 8/30/2016  
 Applicant/Owner: UDOT State: Utah Sampling Point: MPMNAC-083  
 Investigator(s): MP/MN/AC Section, Township, Range: 27 4N 2W  
 Landform (hillslope, terrace, etc.): terrace/depression Local relief (concave, convex, none): concave Slope (%): 1%  
 Subregion (LRR): D Lat: 41.05982423 Long: -112.0620161 Datum: D WGS 1983  
 Soil Map Unit Name: Airport silt loam, 0 to 2 percent slopes NWI classification: PEM1/USA

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)  
 Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐  
 Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
Wetland Hydrology Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		
Remarks:  Problematic soils (high pH) assumed hydric in saline wetland based on vegetation community and landscape position. Seasonal hydrology assumed earlier in the growing season.			

## VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)  Total Number of Dominant Species Across All Strata: <u>2</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
_____ = Total Cover				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B)  Prevalence Index = B/A = _____
<b>Sapling/Shrub Stratum (Plot size: _____)</b> 1. _____ 2. _____ 3. _____ 4. _____ 5. _____ _____ = Total Cover				
<b>Herb Stratum (Plot size: <u>5 ft. radius</u>)</b> 1. <u>Trifolium fragiferum</u> <u>50%</u> <u>Yes</u> <u>FAC</u> 2. <u>Eleocharis palustris</u> <u>40%</u> <u>Yes</u> <u>OBL</u> 3. <u>Schedonorus pratensis</u> <u>10%</u> <u></u> <u>FACU</u> 4. _____ 5. _____ 6. _____ 7. _____ 8. _____ _____ = Total Cover				
<b>Woody Vine Stratum (Plot size: _____)</b> 1. _____ 2. _____ _____ = Total Cover				
% Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____				
Remarks:  Heavily grazed meadow.				<b>Hydrophytic Vegetation Indicators:</b> <input checked="" type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.  <b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>

# SOIL

Sampling Point: MPMNAC

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-5	10YR 3/2	100%						
5-16	7.5YR 7/3	70%	7.5YR 4/2	20%	D	M		
			7.5YR 7/1	10%	D	M		

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) (**LRR C**)
- ☐ 1 cm Muck (A9) (**LRR D**)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)

- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- ☐ 1 cm Muck (A9) (**LRR C**)
- ☐ 2 cm Muck (A10) (**LRR B**)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No ☒

Remarks:

Problematic soils (high pH) assumed hydric in saline wetland based on vegetation community, hydrology indication, and landscape position.

# HYDROLOGY

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1) (**Nonriverine**)
- ☐ Sediment Deposits (B2) (**Nonriverine**)
- ☐ Drift Deposits (B3) (**Nonriverine**)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)

- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) (**Riverine**)
- ☐ Sediment Deposits (B2) (**Riverine**)
- ☐ Drift Deposits (B3) (**Riverine**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☒ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present? Yes \_\_\_\_\_ No ☒ Depth (inches): \_\_\_\_\_

Water Table Present? Yes \_\_\_\_\_ No ☒ Depth (inches): \_\_\_\_\_

Saturation Present? Yes ☒ No ☒ Depth (inches): \_\_\_\_\_  
(includes capillary fringe)

**Wetland Hydrology Present?** Yes ☒ No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Moist but not saturated. Saturated down gradient. Wetland hydrology likely persists earlier in the growing season.

# WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: WDC MPMNAC-08302016-1-OUT City/County: Davis County Sampling Date: 8/30/2016  
 Applicant/Owner: UDOT State: Utah Sampling Point: MPMNAC-083  
 Investigator(s): MP/MN/AC Section, Township, Range: 27 4N 2W  
 Landform (hillslope, terrace, etc.): bottom Local relief (concave, convex, none): convex Slope (%): 2%  
 Subregion (LRR): D Lat: 41.05984845 Long: -112.0619173 Datum: D WGS 1983  
 Soil Map Unit Name: Airport silt loam, 0 to 2 percent slopes NWI classification: PEM1/USA

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)  
 Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐  
 Are Vegetation ☐, Soil ☒, or Hydrology ☒ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		
Wetland Hydrology Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		
Remarks:			

## VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)  Total Number of Dominant Species Across All Strata: <u>2</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50%</u> (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
_____ = Total Cover				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species <u>60</u> x 3 = <u>180</u> FACU species <u>4</u> x 4 = <u>16</u> UPL species <u>26</u> x 5 = <u>130</u> Column Totals: <u>90</u> (A) <u>326</u> (B)  Prevalence Index = B/A = <u>3.6</u>
_____ = Total Cover				
_____ = Total Cover				
_____ = Total Cover				
_____ = Total Cover				
_____ = Total Cover				<b>Hydrophytic Vegetation Indicators:</b> ___ Dominance Test is >50% ___ Prevalence Index is ≤3.0 <sup>1</sup> ___ Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
_____ = Total Cover				
_____ = Total Cover				
_____ = Total Cover				
_____ = Total Cover				
_____ = Total Cover				<b>Hydrophytic Vegetation Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
_____ = Total Cover				
% Bare Ground in Herb Stratum <u>10%</u> % Cover of Biotic Crust _____				<b>Hydrophytic Vegetation Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Remarks:				

# SOIL

Sampling Point: MPMNAC

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-5	10YR 4/2	100%					SaLoam	
5-14	10YR 4/3	100%					SaLoam	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) (**LRR C**)
- ☐ 1 cm Muck (A9) (**LRR D**)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)

- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- ☐ 1 cm Muck (A9) (**LRR C**)
- ☐ 2 cm Muck (A10) (**LRR B**)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No ☒

Remarks:

# HYDROLOGY

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1) (**Nonriverine**)
- ☐ Sediment Deposits (B2) (**Nonriverine**)
- ☐ Drift Deposits (B3) (**Nonriverine**)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)

- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) (**Riverine**)
- ☐ Sediment Deposits (B2) (**Riverine**)
- ☐ Drift Deposits (B3) (**Riverine**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present? Yes \_\_\_\_\_ No ☒ Depth (inches): \_\_\_\_\_

Water Table Present? Yes \_\_\_\_\_ No ☒ Depth (inches): \_\_\_\_\_

Saturation Present? Yes \_\_\_\_\_ No ☒ Depth (inches): \_\_\_\_\_  
(includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 5/10/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 4 Sampling Point: 12-N-201205100945  
 Investigators: Ron Kass Paul Dawson Section, Township, Range S 21 T 4 R 2  
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): Concave Slope(%) 1  
 Subregion (LRR): LRR D Lat: 41.0668722862 Long: -112.065698278 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Ford loam, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> <b>Wetland ID:</b> _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	

Remarks:  
 Pasture with some hydrophytic species but no hydric soil or wetland hydrology.

## VEGETATION— Use scientific names of plants.

**Absolute % Cover** **Dominant Species** **Indicator Status**

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

Festuca pratensis	60	Y	FACU
Eleocharis palustris	30	Y	OBL
Schoenoplectus pungens	1	N	OBL
	91	=Total Cover	

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 1 (A)  
 Total Number of Dominant Species Across all Strata: 2 (B)  
 Percent of Dominant Species That are OBL, FACW, or FAC: 50.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>31</u>	x 1 = <u>31</u>
FACW species <u>0</u>	x 2 = <u>0</u>
FAC species <u>0</u>	x 3 = <u>0</u>
FACU species <u>60</u>	x 4 = <u>240</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>91</u> (A)	<u>271</u> (B)
Prevalence Index = B/A= <u>2.98</u>	

### Hydrophytic Vegetation Indicators:

\_\_\_\_ Rapid Test for Hydrophytic Vegetation  
 \_\_\_\_ Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
 \_\_\_\_ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 \_\_\_\_ Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No \_\_\_\_\_

% Bare Ground in Herb Stratum 5 % Cover of Biotic Crust \_\_\_\_\_

Remarks: (Include photo numbers here or on a separate sheet.)  
 Fescue and spike-rush meadow qualifies as hydrophytic by Prevalence Index.



**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 10	10YR	4.0 / 2	100				SANDY LOAM	
10 to 18	10YR	5.0 / 3	100				SANDY LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)           |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)       |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)   |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)   |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input type="checkbox"/> Depleted Matrix (F3)       |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)     |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)          |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |   |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- |   |
|---|
| <input type="checkbox"/> 1 cm Muck (A9) (LRR C)     |
| <input type="checkbox"/> 2 cm Muck (A10) (LRR B)    |
| <input type="checkbox"/> Reduced Vertic (F18)       |
| <input type="checkbox"/> Red Parent Material (TF2)  |
| <input type="checkbox"/> Other (Explain in Remarks) |

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No X

## Remarks:

No hydric soil indicators observed.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- |   |
|---|
| <input type="checkbox"/> Water Marks (B1) (Riverine)            |
| <input type="checkbox"/> Sediment Deposits (B2) (Riverine)      |
| <input type="checkbox"/> Drift Deposits (B3) (Riverine)         |
| <input type="checkbox"/> Drainage Patterns (B10)                |
| <input type="checkbox"/> Dry-Season Water Table (C2)            |
| <input type="checkbox"/> Crayfish Burrows (C8)                  |
| <input type="checkbox"/> Saturation Visible on Aerial Imag.(C9) |
| <input type="checkbox"/> Shallow Aquitard (D3)                  |
| <input checked="" type="checkbox"/> FAC-Neutral Test (D5)       |

**Field Observations:**

Surface Water Present?	Yes _____ No <u>X</u>	Depth (inches): _____
Water Table Present?	Yes _____ No <u>X</u>	Depth (inches): _____
Saturation Present?	Yes _____ No <u>X</u>	Depth (inches): _____

(includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

Dry area lacks sufficient evidence for wetland hydrology.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 4/24/2013  
 Applicant/Owner: UDOT State: UT Map/Sheet: 4 Sampling Point: 12-N-201304241549  
 Investigators: Nate Nichols Mike Perkins Section, Township, Range S 21 T 4 R 2  
 Landform (hillslope, terrace, etc.): Basin Local Relief (concave, convex, none): None Slope(%) 0  
 Subregion (LRR): LRR D Lat: 41.067002 Long: -112.0654554 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Ford loam, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes \_\_\_\_\_ No X  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> <b>Wetland ID:</b> _____
Hydric Soil Present?	Yes _____ No <u>X</u>	
Wetland Hydrology Present?	Yes _____ No <u>X</u>	

Remarks:  
 Non-wetland sampling point does not contain hydrophytic vegetation. Sampling point is just east of wetland point and used to help delineate wetland boundary.

## VEGETATION— Use scientific names of plants.

**Absolute % Cover** **Dominant Species** **Indicator Status**

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

Festuca pratensis	80	Y	FACU
Thinopyrum intermedium	10	N	UPL
Trifolium fragiferum	10	N	FACU
	100	=Total Cover	

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 1 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 0.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>0</u>	x 2 = <u>0</u>
FAC species <u>0</u>	x 3 = <u>0</u>
FACU species <u>90</u>	x 4 = <u>360</u>
UPL species <u>10</u>	x 5 = <u>50</u>
Column Totals: <u>100</u> (A)	<u>410</u> (B)

Prevalence Index = B/A= 4.10

### Hydrophytic Vegetation Indicators:

☐ Rapid Test for Hydrophytic Vegetation  
☐ Dominance Test > 50%  
☐ Prevalence Index ≤ 3.0  
☐ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
☐ Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes \_\_\_\_\_ No X

% Bare Ground in Herb Stratum \_\_\_\_\_ % Cover of Biotic Crust \_\_\_\_\_

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation is not hydrophytic.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)           |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)       |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)   |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)   |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input type="checkbox"/> Depleted Matrix (F3)       |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)     |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)          |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |   |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- |   |
|---|
| <input type="checkbox"/> 1 cm Muck (A9) (LRR C)     |
| <input type="checkbox"/> 2 cm Muck (A10) (LRR B)    |
| <input type="checkbox"/> Reduced Vertic (F18)       |
| <input type="checkbox"/> Red Parent Material (TF2)  |
| <input type="checkbox"/> Other (Explain in Remarks) |

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No X**Remarks:**

Soils not evaluated since sampling point does not contain hydrophytic vegetation.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- |   |
|---|
| <input type="checkbox"/> Water Marks (B1) (Riverine)            |
| <input type="checkbox"/> Sediment Deposits (B2) (Riverine)      |
| <input type="checkbox"/> Drift Deposits (B3) (Riverine)         |
| <input type="checkbox"/> Drainage Patterns (B10)                |
| <input type="checkbox"/> Dry-Season Water Table (C2)            |
| <input type="checkbox"/> Crayfish Burrows (C8)                  |
| <input type="checkbox"/> Saturation Visible on Aerial Imag.(C9) |
| <input type="checkbox"/> Shallow Aquitard (D3)                  |
| <input type="checkbox"/> FAC-Neutral Test (D5)                  |

**Field Observations:**Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Water Table Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Saturation Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_

(includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

**Remarks:**

No hydrology indicators observed.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 4/24/2013  
 Applicant/Owner: UDOT State: UT Map/Sheet: 4 Sampling Point: 12-W-201304241447  
 Investigators: Nate Nichols Mike Perkins Section, Township, Range S 21 T 4 R 2  
 Landform (hillslope, terrace, etc.): Depression Local Relief (concave, convex, none): None Slope(%) 0  
 Subregion (LRR): LRR D Lat: 41.067002 Long: -1123.066154 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Ford loam, 0 to 1 percent slopes NWI Classification: PEMA

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No        (If No, explain in Remarks)  
 Are Vegetation       , Soil       , Hydrology       , significantly disturbed? Are "Normal Circumstances" present? Yes X No         
 Are Vegetation       , Soil       , Hydrology       , naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No <u>      </u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No <u>      </u> Wetland ID: <u>12-IW-47</u>
Hydric Soil Present? Yes <u>      </u> No <u>X</u>	
Wetland Hydrology Present? Yes <u>X</u> No <u>      </u>	

Remarks:  
 Confirmation point within wetland polygon delineated in 2012.

## VEGETATION— Use scientific names of plants.

**Absolute % Cover** **Dominant Species** **Indicator Status**

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

Eleocharis palustris	40	Y	OBL
Festuca pratensis	30	Y	FACU
Juncus torreyi	25	Y	FACW
Thinopyrum ponticum	5	N	UPL
Trifolium fragiferum	5	N	FACU
	105	=Total Cover	

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 2 (A)  
 Total Number of Dominant Species Across all Strata: 3 (B)  
 Percent of Dominant Species That are OBL, FACW, or FAC: 66.7% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>40</u>	x 1 = <u>40</u>
FACW species <u>25</u>	x 2 = <u>50</u>
FAC species <u>0</u>	x 3 = <u>0</u>
FACU species <u>35</u>	x 4 = <u>140</u>
UPL species <u>5</u>	x 5 = <u>25</u>
Column Totals: <u>105</u> (A)	<u>255</u> (B)
Prevalence Index = B/A= <u>2.43</u>	

### Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
 Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No       

% Bare Ground in Herb Stratum 0 % Cover of Biotic Crust 0

Remarks: (Include photo numbers here or on a separate sheet.)  
 Pasture contains relatively diverse and desirable hydrophytic vegetation.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
to	/		G1 2.5/N	40	C	M		Mg Concentrations
0 to 1	10YR 4/ 3	100					Organic Layer	Root Mat
1 to 6	10YR 4/ 2	50	10YR 3/6	10	C	PL	SILTY CLAY LOAM	
6 to 18	10YR 4/ 2	90	G1 2.5/ N	10	C	PL	SILTY CLAY LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |  |
|--|--|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)                |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)            |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)        |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)        |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input checked="" type="checkbox"/> Depleted Matrix (F3) |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)         |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7)      |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)          |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)               |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |  |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- |   |
|---|
| <input type="checkbox"/> 1 cm Muck (A9) (LRR C)     |
| <input type="checkbox"/> 2 cm Muck (A10) (LRR B)    |
| <input type="checkbox"/> Reduced Vertic (F18)       |
| <input type="checkbox"/> Red Parent Material (TF2)  |
| <input type="checkbox"/> Other (Explain in Remarks) |

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No XRemarks:  
Meets F3 indicator.**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input checked="" type="checkbox"/> Saturation (A3)                | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- |   |
|---|
| <input type="checkbox"/> Water Marks (B1) (Riverine)            |
| <input type="checkbox"/> Sediment Deposits (B2) (Riverine)      |
| <input type="checkbox"/> Drift Deposits (B3) (Riverine)         |
| <input type="checkbox"/> Drainage Patterns (B10)                |
| <input type="checkbox"/> Dry-Season Water Table (C2)            |
| <input type="checkbox"/> Crayfish Burrows (C8)                  |
| <input type="checkbox"/> Saturation Visible on Aerial Imag.(C9) |
| <input type="checkbox"/> Shallow Aquitard (D3)                  |
| <input checked="" type="checkbox"/> FAC-Neutral Test (D5)       |

**Field Observations:**Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Water Table Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Saturation Present? Yes X No \_\_\_\_\_ Depth (inches): 6

(includes capillary fringe)

**Wetland Hydrology Present?** Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

Wetland hydrology present. Field observed being flood-irrigating on other days.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 4/24/2013  
 Applicant/Owner: UDOT State: UT Map/Sheet: 4 Sampling Point: 12-W-201304241529  
 Investigators: Nate Nichols Mike Perkins Section, Township, Range S 21 T 4 R 2  
 Landform (hillslope, terrace, etc.): Depression Local Relief (concave, convex, none): None Slope(%) 0  
 Subregion (LRR): LRR D Lat: 41.067002 Long: -112.065454 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Ford loam, 0 to 1 percent slopes NWI Classification: PEMA

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No        (If No, explain in Remarks)  
 Are Vegetation       , Soil       , Hydrology       , significantly disturbed? Are "Normal Circumstances" present? Yes X No         
 Are Vegetation       , Soil       , Hydrology       , naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No <u>      </u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No <u>      </u> Wetland ID: <u>12-IW-47</u>
Hydric Soil Present? Yes <u>X</u> No <u>      </u>	
Wetland Hydrology Present? Yes <u>X</u> No <u>      </u>	

Remarks:  
 Sampling point is a wetland.

## VEGETATION— Use scientific names of plants.

**Absolute % Cover** **Dominant Species** **Indicator Status**

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

Eleocharis palustris	50	Y	OBL
Festuca pratensis	40	Y	FACU
Juncus torreyi	40	Y	FACW
	130	=Total Cover	

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across all Strata: 3 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 66.7% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>50</u>	x 1 = <u>50</u>
FACW species <u>40</u>	x 2 = <u>80</u>
FAC species <u>0</u>	x 3 = <u>0</u>
FACU species <u>40</u>	x 4 = <u>160</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>130</u> (A)	<u>290</u> (B)

Prevalence Index = B/A = 2.23

### Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
 Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No       

% Bare Ground in Herb Stratum 0 % Cover of Biotic Crust 0

Remarks: (Include photo numbers here or on a separate sheet.)  
 Relatively flat irrigated pasture contains hydrophytic vegetation.



**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
to	/		G1 2.5/ N	3	D	M	CLAY	Mg masses
to	/		7.5YR 6/3	2	D	M	CLAY	
0 to 1	10YR	3/ 2					Org	Root mat
1 to 7	10YR	4/ 2	10YR 4/6	10	C	PL	SANDY LOAM	
7 to 18	10YR	5/ 2					FINE SAND	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |  |
|--|--|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)                |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)            |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)        |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)        |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input checked="" type="checkbox"/> Depleted Matrix (F3) |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)         |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7)      |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)          |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)               |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |  |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- |   |
|---|
| <input type="checkbox"/> 1 cm Muck (A9) (LRR C)     |
| <input type="checkbox"/> 2 cm Muck (A10) (LRR B)    |
| <input type="checkbox"/> Reduced Vertic (F18)       |
| <input type="checkbox"/> Red Parent Material (TF2)  |
| <input type="checkbox"/> Other (Explain in Remarks) |

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes X No \_\_\_\_\_

## Remarks:

Soil profile meets F3 indicator.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input checked="" type="checkbox"/> Saturation (A3)                | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- |  |
|--|
| <input type="checkbox"/> Water Marks (B1) (Riverine)             |
| <input type="checkbox"/> Sediment Deposits (B2) (Riverine)       |
| <input type="checkbox"/> Drift Deposits (B3) (Riverine)          |
| <input type="checkbox"/> Drainage Patterns (B10)                 |
| <input type="checkbox"/> Dry-Season Water Table (C2)             |
| <input type="checkbox"/> Crayfish Burrows (C8)                   |
| <input type="checkbox"/> Saturation Visible on Aerial Imag. (C9) |
| <input type="checkbox"/> Shallow Aquitard (D3)                   |
| <input checked="" type="checkbox"/> FAC-Neutral Test (D5)        |

**Field Observations:**

Surface Water Present?	Yes _____ No <u>X</u>	Depth (inches): _____
Water Table Present?	Yes _____ No <u>X</u>	Depth (inches): _____
Saturation Present?	Yes <u>X</u> No _____	Depth (inches): <u>10</u>

(includes capillary fringe)

**Wetland Hydrology Present?** Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

Wetland hydrology present with saturation at 10 inches.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 5/8/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: \_\_\_\_\_ Sampling Point: 13-N-201205081357  
 Investigators: Paul Dawson Section, Township, Range S 21 T 4 R 2  
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): Convex Slope(%) 1  
 Subregion (LRR): LRR D Lat: 41.061310378 Long: -112.079276114 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Warm Springs fine sandy loam, 1 to 3 percent slopes NWI Classification: \_\_\_\_\_  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland?	Yes _____ No <u>X</u>
Hydric Soil Present?	Yes _____ No <u>X</u>		
Wetland Hydrology Present?	Yes _____ No <u>X</u>		Wetland ID: _____

Remarks:  
 Upland.

## VEGETATION— Use scientific names of plants.

Absolute  
% Cover

Dominant  
Species

Indicator  
Status

### Tree Stratum

### Shrub Stratum (Plot size: 30 Ft )

Sarcobatus vermiculatus

10

Y

FAC

10 =Total Cover

### Herb Stratum

(Plot size: 30 Ft )

Festuca pratensis

80

Y

FACU

80 =Total Cover

### Vine Stratum

## Dominance Test Worksheet:

Number of Dominant Species  
That are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant  
Species Across all Strata: 2 (B)

Percent of Dominant Species  
That are OBL, FACW, or FAC: 50.0% (A/B)

## Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	<u>0</u>	x 1 =	<u>0</u>
FACW species	<u>0</u>	x 2 =	<u>0</u>
FAC species	<u>10</u>	x 3 =	<u>30</u>
FACU species	<u>80</u>	x 4 =	<u>320</u>
UPL species	<u>0</u>	x 5 =	<u>0</u>
Column Totals:	<u>90</u> (A)		<u>350</u> (B)

Prevalence Index = B/A= 3.89

## Hydrophytic Vegetation Indicators:

\_\_\_\_ Rapid Test for Hydrophytic Vegetation  
 \_\_\_\_ Dominance Test > 50%  
 \_\_\_\_ Prevalence Index ≤ 3.0  
 \_\_\_\_ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 \_\_\_\_ Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic  
Vegetation Present? Yes \_\_\_\_\_ No X

% Bare Ground in Herb Stratum 10 % Cover of Biotic Crust

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation is not hydrophytic.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 18	10YR	4.0 / 2		100			SILT LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)           |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)       |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)   |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)   |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input type="checkbox"/> Depleted Matrix (F3)       |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)     |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)          |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |   |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- |   |
|---|
| <input type="checkbox"/> 1 cm Muck (A9) (LRR C)     |
| <input type="checkbox"/> 2 cm Muck (A10) (LRR B)    |
| <input type="checkbox"/> Reduced Vertic (F18)       |
| <input type="checkbox"/> Red Parent Material (TF2)  |
| <input type="checkbox"/> Other (Explain in Remarks) |

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No X

## Remarks:

Soi fails to meet any hydric indicators.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- |   |
|---|
| <input type="checkbox"/> Water Marks (B1) (Riverine)            |
| <input type="checkbox"/> Sediment Deposits (B2) (Riverine)      |
| <input type="checkbox"/> Drift Deposits (B3) (Riverine)         |
| <input type="checkbox"/> Drainage Patterns (B10)                |
| <input type="checkbox"/> Dry-Season Water Table (C2)            |
| <input type="checkbox"/> Crayfish Burrows (C8)                  |
| <input type="checkbox"/> Saturation Visible on Aerial Imag.(C9) |
| <input type="checkbox"/> Shallow Aquitard (D3)                  |
| <input type="checkbox"/> FAC-Neutral Test (D5)                  |

**Field Observations:**Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Water Table Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Saturation Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_

(includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

No hydrology indicators observed.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 5/8/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: \_\_\_\_\_ Sampling Point: 13-N-201205081415  
 Investigators: Paul Dawson Section, Township, Range S 21 T 4 R 2  
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): Convex Slope(%) 5  
 Subregion (LRR): LRR D Lat: 41.0614342653 Long: -112.079689189 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Warm Springs fine sandy loam, 1 to 3 percent slopes NWI Classification: \_\_\_\_\_  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland?	Yes _____ No <u>X</u>
Hydric Soil Present?	Yes _____ No <u>X</u>		
Wetland Hydrology Present?	Yes _____ No <u>X</u>		Wetland ID: _____

Remarks:  
 Upland data point

## VEGETATION— Use scientific names of plants.

<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
<u>Tree Stratum</u>		
10	Y	FAC
10	=Total Cover	
<u>Shrub Stratum</u> (Plot size: <u>30 Ft</u> )		
70	Y	UPL
10	N	UPL
3	N	FAC
83	=Total Cover	
<u>Vine Stratum</u>		

### Dominance Test Worksheet:

Number of Dominant Species  
That are OBL, FACW, or FAC: 1 (A)  
 Total Number of Dominant  
Species Across all Strata: 2 (B)  
 Percent of Dominant Species  
That are OBL, FACW, or FAC: 50.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>0</u>	x 2 = <u>0</u>
FAC species <u>13</u>	x 3 = <u>39</u>
FACU species <u>0</u>	x 4 = <u>0</u>
UPL species <u>80</u>	x 5 = <u>400</u>
Column Totals: <u>93</u> (A)	<u>439</u> (B)

Prevalence Index = B/A= 4.72

### Hydrophytic Vegetation Indicators:

\_\_\_\_ Rapid Test for Hydrophytic Vegetation  
 \_\_\_\_ Dominance Test > 50%  
 \_\_\_\_ Prevalence Index ≤ 3.0  
 \_\_\_\_ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 \_\_\_\_ Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic  
Vegetation Present?** Yes \_\_\_\_\_ No X

% Bare Ground in Herb Stratum 15 % Cover of Biotic Crust

Remarks: (Include photo numbers here or on a separate sheet.)

Wheatgrass and greasewood community, well grazed.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 18	10YR	4.0 / 2		100			SILT LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)           |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)       |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)   |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)   |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input type="checkbox"/> Depleted Matrix (F3)       |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)     |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)          |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |   |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- |   |
|---|
| <input type="checkbox"/> 1 cm Muck (A9) (LRR C)     |
| <input type="checkbox"/> 2 cm Muck (A10) (LRR B)    |
| <input type="checkbox"/> Reduced Vertic (F18)       |
| <input type="checkbox"/> Red Parent Material (TF2)  |
| <input type="checkbox"/> Other (Explain in Remarks) |

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No X

## Remarks:

Soi fails to meet any hydric indicators.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- |   |
|---|
| <input type="checkbox"/> Water Marks (B1) (Riverine)            |
| <input type="checkbox"/> Sediment Deposits (B2) (Riverine)      |
| <input type="checkbox"/> Drift Deposits (B3) (Riverine)         |
| <input type="checkbox"/> Drainage Patterns (B10)                |
| <input type="checkbox"/> Dry-Season Water Table (C2)            |
| <input type="checkbox"/> Crayfish Burrows (C8)                  |
| <input type="checkbox"/> Saturation Visible on Aerial Imag.(C9) |
| <input type="checkbox"/> Shallow Aquitard (D3)                  |
| <input type="checkbox"/> FAC-Neutral Test (D5)                  |

**Field Observations:**Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Water Table Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Saturation Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_

(includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

No wetland hydrology indicators.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 5/8/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: \_\_\_\_\_ Sampling Point: 13-N-201205081437  
 Investigators: Paul Dawson Section, Township, Range S 21 T 4 R 2  
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): Convex Slope(%) 0  
 Subregion (LRR): LRR D Lat: 41.0616277774 Long: -112.080939333 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Pintailake-Eimarsh-Playas complex, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>X</u>
Hydric Soil Present?	Yes _____ No <u>X</u>	
Wetland Hydrology Present?	Yes _____ No <u>X</u>	
Wetland ID: _____		

Remarks:  
 Upland data point

## VEGETATION— Use scientific names of plants.

**Absolute % Cover** **Dominant Species** **Indicator Status**

### Tree Stratum

### Shrub Stratum (Plot size: 30 Ft )

Sarcobatus vermiculatus

15

Y

FAC

15

=Total Cover

### Herb Stratum

(Plot size: 30 Ft )

Thinopyrum ponticum

60

Y

UPL

Distichlis spicata

15

N

FAC

Bromus tectorum

5

N

UPL

Sporobolus airoides

2

N

FAC

82

=Total Cover

### Vine Stratum

## Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across all Strata: 2 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 50.0% (A/B)

## Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>0</u>	x 2 = <u>0</u>
FAC species <u>32</u>	x 3 = <u>96</u>
FACU species <u>0</u>	x 4 = <u>0</u>
UPL species <u>65</u>	x 5 = <u>325</u>
Column Totals: <u>97</u> (A)	<u>421</u> (B)

Prevalence Index = B/A = 4.34

## Hydrophytic Vegetation Indicators:

☐ Rapid Test for Hydrophytic Vegetation  
☐ Dominance Test > 50%  
☐ Prevalence Index ≤ 3.0  
☐ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
☐ Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes \_\_\_\_\_ No X

% Bare Ground in Herb Stratum 10 % Cover of Biotic Crust

Remarks: (Include photo numbers here or on a separate sheet.)  
 Wheatgrass and greasewood community with some salt grass and other grasses.



**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 18	10YR	4.0 / 2		100			SILT LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)           |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)       |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)   |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)   |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input type="checkbox"/> Depleted Matrix (F3)       |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)     |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)          |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |   |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- |   |
|---|
| <input type="checkbox"/> 1 cm Muck (A9) (LRR C)     |
| <input type="checkbox"/> 2 cm Muck (A10) (LRR B)    |
| <input type="checkbox"/> Reduced Vertic (F18)       |
| <input type="checkbox"/> Red Parent Material (TF2)  |
| <input type="checkbox"/> Other (Explain in Remarks) |

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No XRemarks:  
No hydric soil indicators observed.**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- |   |
|---|
| <input type="checkbox"/> Water Marks (B1) (Riverine)            |
| <input type="checkbox"/> Sediment Deposits (B2) (Riverine)      |
| <input type="checkbox"/> Drift Deposits (B3) (Riverine)         |
| <input type="checkbox"/> Drainage Patterns (B10)                |
| <input type="checkbox"/> Dry-Season Water Table (C2)            |
| <input type="checkbox"/> Crayfish Burrows (C8)                  |
| <input type="checkbox"/> Saturation Visible on Aerial Imag.(C9) |
| <input type="checkbox"/> Shallow Aquitard (D3)                  |
| <input type="checkbox"/> FAC-Neutral Test (D5)                  |

**Field Observations:**Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Water Table Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Saturation Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_

(includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:  
No wetland hydrology indicators.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 5/8/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: \_\_\_\_\_ Sampling Point: 13-W-201205081345  
 Investigators: Paul Dawson Section, Township, Range S 21 T 4 R 2  
 Landform (hillslope, terrace, etc.): Basin Local Relief (concave, convex, none): Concave Slope(%) 2  
 Subregion (LRR): LRR D Lat: 41.0612661431 Long: -112.079179693 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Warm Springs fine sandy loam, 1 to 3 percent slopes NWI Classification: PEMC  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ <b>Wetland ID:</b> <u>13-W-63</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks:  
 Hydrology fed by culvert from across road.

## VEGETATION— Use scientific names of plants.

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
Typha latifolia	60	Y	OBL
Hordeum jubatum	10	N	FAC
Puccinellia nuttalliana	5	N	FACW
Carex praegracilis	3	N	FACW
Schoenoplectus pungens	3	N	OBL
Rumex crispus	1	N	FAC
	82	=Total Cover	

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across all Strata: 1 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>63</u>	x 1 = <u>63</u>
FACW species <u>8</u>	x 2 = <u>16</u>
FAC species <u>11</u>	x 3 = <u>33</u>
FACU species <u>0</u>	x 4 = <u>0</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>82</u> (A)	<u>112</u> (B)

Prevalence Index = B/A = 1.37

### Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
 Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No \_\_\_\_\_

% Bare Ground in Herb Stratum 15 % Cover of Biotic Crust

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation is hydrophytic.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)**

Depth (inches)	Matrix			Redox Features				Texture	Remarks
	Color (moist)		%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 3	10YR	5.0 / 2	100					SILT LOAM	
3 to 16	10YR	4.0 / 1	70	10YR 5/4	30	C	M	SILT LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- ☐ Histosol (A1)  
☐ Histic Epipedon (A2)  
☐ Black Histic (A3)  
☐ Hydrogen Sulfide (A4)  
☐ Stratified Layers (A5) LRR C  
☐ 1 cm Muck (A9) LRR F D  
☒ Depleted Below Dark Surface (A11)  
☐ Thick Dark Surface (A12)  
☐ Sandy Mucky Mineral (S1)  
☐ Sandy Gleyed Matrix (S4)

- ☐ Sandy Redox (S5)  
☐ Stripped Matrix (S6)  
☐ Loamy Mucky Mineral (F1)  
☐ Loamy Gleyed Matrix (F2)  
☒ Depleted Matrix (F3)  
☐ Redox Dark Surface (F6)  
☐ Depleted Dark Surface (F7)  
☐ Redox Depressions (F8)  
☐ Vernal Pools (F9)

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)  
☐ 2 cm Muck (A10) (LRR B)  
☐ Reduced Vertic (F18)  
☐ Red Parent Material (TF2)  
☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes X No \_\_\_\_\_

## Remarks:

Soil meets criteria for hydric indicator F3.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- ☒ Surface Water (A1)  
☒ High Water Table (A2)  
☒ Saturation (A3)  
☐ Water Marks (B1) (Nonriverine)  
☐ Sediment Deposits (B2) (Nonriverine)  
☐ Drift Deposits (B3) (Nonriverine)  
☐ Surface Soil Cracks (B6)  
☐ Inundation Visible on Aerial Imagery (B7)  
☐ Water-Stained Leaves (B9)  
☐ Salt Crust (B11)  
☐ Biotic Crust (B12)  
☐ Aquatic Fauna (B13)  
☐ Hydrogen Sulfide Odor (C1)  
☐ Oxidized Rhizospheres along Living Roots (C3)  
☐ Presence of Reduced Iron (C4)  
☐ Recent Iron Reduction in Tilled Soils (C6)  
☐ Thin Muck Surface (C7)  
☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)  
☐ Sediment Deposits (B2) (Riverine)  
☐ Drift Deposits (B3) (Riverine)  
☐ Drainage Patterns (B10)  
☐ Dry-Season Water Table (C2)  
☐ Crayfish Burrows (C8)  
☐ Saturation Visible on Aerial Imag.(C9)  
☐ Shallow Aquitard (D3)  
☒ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present? Yes X No \_\_\_\_\_ Depth (inches): 2  
 Water Table Present? Yes X No \_\_\_\_\_ Depth (inches): 0  
 Saturation Present? Yes X No \_\_\_\_\_ Depth (inches): 0  
 (includes capillary fringe)

**Wetland Hydrology Present?** Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

Wetland hydrology present.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 5/8/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: \_\_\_\_\_ Sampling Point: 13-W-201205081407  
 Investigators: Paul Dawson Section, Township, Range S 21 T 4 R 2  
 Landform (hillslope, terrace, etc.): Basin Local Relief (concave, convex, none): Concave Slope(%) 1  
 Subregion (LRR): LRR D Lat: 41.0613374772 Long: -112.079778519 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Pintailake-Eimarsh-Playas complex, 0 to 1 percent slopes NWI Classification: PEMC  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ <b>Wetland ID:</b> <u>13-W-63</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks:  
 Depression with Schoenoplectus pungens.

## VEGETATION— Use scientific names of plants.

	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
<u>Tree Stratum</u>			
<u>Shrub Stratum</u>			
<u>Herb Stratum</u> (Plot size: <u>30 Ft</u> )			
<u>Schoenoplectus pungens</u>	<u>100</u>	<u>Y</u>	<u>OBL</u>
	<u>100</u> =Total Cover		
<u>Vine Stratum</u>			

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 1 (A)  
 Total Number of Dominant Species Across all Strata: 1 (B)  
 Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>100</u>	x 1 = <u>100</u>
FACW species <u>0</u>	x 2 = <u>0</u>
FAC species <u>0</u>	x 3 = <u>0</u>
FACU species <u>0</u>	x 4 = <u>0</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>100</u> (A)	<u>100</u> (B)
Prevalence Index = B/A= <u>1.00</u>	

### Hydrophytic Vegetation Indicators:

   Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
   Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
   Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

### Hydrophytic

Vegetation Present? Yes X No \_\_\_\_\_

% Bare Ground in Herb Stratum 0 % Cover of Biotic Crust

Remarks: (Include photo numbers here or on a separate sheet.)

Thick 100% three-square.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)		Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 2	10YR	4.0 / 2		100			OM	
2 to 16	10YR	4.0 / 1	10YR 5/4	30	C	M	SILT LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |  |
|--|--|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)                |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)            |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)        |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)        |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input checked="" type="checkbox"/> Depleted Matrix (F3) |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)         |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7)      |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)          |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)               |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |  |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- |   |
|---|
| <input type="checkbox"/> 1 cm Muck (A9) (LRR C)     |
| <input type="checkbox"/> 2 cm Muck (A10) (LRR B)    |
| <input type="checkbox"/> Reduced Vertic (F18)       |
| <input type="checkbox"/> Red Parent Material (TF2)  |
| <input type="checkbox"/> Other (Explain in Remarks) |

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes X No \_\_\_\_\_

## Remarks:

Soil meets criteria for hydric indicator F3.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input checked="" type="checkbox"/> Surface Water (A1)             | <input type="checkbox"/> Salt Crust (B11)                              |
| <input checked="" type="checkbox"/> High Water Table (A2)          | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input checked="" type="checkbox"/> Saturation (A3)                | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- |   |
|---|
| <input type="checkbox"/> Water Marks (B1) (Riverine)            |
| <input type="checkbox"/> Sediment Deposits (B2) (Riverine)      |
| <input type="checkbox"/> Drift Deposits (B3) (Riverine)         |
| <input type="checkbox"/> Drainage Patterns (B10)                |
| <input type="checkbox"/> Dry-Season Water Table (C2)            |
| <input type="checkbox"/> Crayfish Burrows (C8)                  |
| <input type="checkbox"/> Saturation Visible on Aerial Imag.(C9) |
| <input type="checkbox"/> Shallow Aquitard (D3)                  |
| <input checked="" type="checkbox"/> FAC-Neutral Test (D5)       |

**Field Observations:**

Surface Water Present?	Yes	<u>X</u>	No	_____	Depth (inches):	<u>1</u>
Water Table Present?	Yes	<u>X</u>	No	_____	Depth (inches):	<u>0</u>
Saturation Present?	Yes	<u>X</u>	No	_____	Depth (inches):	<u>0</u>

(includes capillary fringe)

**Wetland Hydrology Present?** Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

Wetland hydrology present.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 5/8/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: \_\_\_\_\_ Sampling Point: 13-W-201205081432  
 Investigators: Paul Dawson Section, Township, Range S 21 T 4 R 2  
 Landform (hillslope, terrace, etc.): Basin Local Relief (concave, convex, none): Concave Slope(%) 0  
 Subregion (LRR): LRR D Lat: 41.0615390638 Long: -112.080544911 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Warm Springs fine sandy loam, 1 to 3 percent slopes NWI Classification: PEMC  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ <b>Wetland ID:</b> <u>13-W-62</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks:  
 Depressional wetland.

## VEGETATION— Use scientific names of plants.

**Absolute % Cover** **Dominant Species** **Indicator Status**

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

Eleocharis palustris	50	Y	OBL
Distichlis spicata	20	Y	FAC
Schoenoplectus pungens	2	N	OBL
	72	=Total Cover	

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across all Strata: 2 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>52</u>	x 1 = <u>52</u>
FACW species <u>0</u>	x 2 = <u>0</u>
FAC species <u>20</u>	x 3 = <u>60</u>
FACU species <u>0</u>	x 4 = <u>0</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>72</u> (A)	<u>112</u> (B)

Prevalence Index = B/A = 1.56

### Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
 Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No \_\_\_\_\_

% Bare Ground in Herb Stratum 15 % Cover of Biotic Crust

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation is hydrophytic.



**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 18	10YR	5.0 / 1					SILTY CLAY LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- ☐ Histosol (A1)  
☐ Histic Epipedon (A2)  
☐ Black Histic (A3)  
☐ Hydrogen Sulfide (A4)  
☐ Stratified Layers (A5) LRR C  
☐ 1 cm Muck (A9) LRR F D  
☐ Depleted Below Dark Surface (A11)  
☐ Thick Dark Surface (A12)  
☐ Sandy Mucky Mineral (S1)  
☐ Sandy Gleyed Matrix (S4)

- ☐ Sandy Redox (S5)  
☐ Stripped Matrix (S6)  
☐ Loamy Mucky Mineral (F1)  
☐ Loamy Gleyed Matrix (F2)  
☒ Depleted Matrix (F3)  
☐ Redox Dark Surface (F6)  
☐ Depleted Dark Surface (F7)  
☐ Redox Depressions (F8)  
☐ Vernal Pools (F9)

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)  
☐ 2 cm Muck (A10) (LRR B)  
☐ Reduced Vertic (F18)  
☐ Red Parent Material (TF2)  
☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes X No \_\_\_\_\_

**Remarks:**

Soil meets criteria for hydric indicator F3.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- ☒ Surface Water (A1)  
☒ High Water Table (A2)  
☒ Saturation (A3)  
☐ Water Marks (B1) (Nonriverine)  
☐ Sediment Deposits (B2) (Nonriverine)  
☐ Drift Deposits (B3) (Nonriverine)  
☐ Surface Soil Cracks (B6)  
☐ Inundation Visible on Aerial Imagery (B7)  
☐ Water-Stained Leaves (B9)  
☐ Salt Crust (B11)  
☐ Biotic Crust (B12)  
☐ Aquatic Fauna (B13)  
☐ Hydrogen Sulfide Odor (C1)  
☐ Oxidized Rhizospheres along Living Roots (C3)  
☐ Presence of Reduced Iron (C4)  
☐ Recent Iron Reduction in Tilled Soils (C6)  
☐ Thin Muck Surface (C7)  
☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)  
☐ Sediment Deposits (B2) (Riverine)  
☐ Drift Deposits (B3) (Riverine)  
☐ Drainage Patterns (B10)  
☐ Dry-Season Water Table (C2)  
☐ Crayfish Burrows (C8)  
☐ Saturation Visible on Aerial Imag.(C9)  
☐ Shallow Aquitard (D3)  
☒ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present? Yes X No \_\_\_\_\_ Depth (inches): 1  
 Water Table Present? Yes X No \_\_\_\_\_ Depth (inches): 0  
 Saturation Present? Yes X No \_\_\_\_\_ Depth (inches): 0  
 (includes capillary fringe)

**Wetland Hydrology Present?** Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

**Remarks:**

Wetland hydrology present.

# WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: WDC ACJW-08222016-1-IN-2 City/County: Davis County Sampling Date: 8/25/2016  
 Applicant/Owner: UDOT State: Utah Sampling Point: ACJW-08222016  
 Investigator(s): JW/AC Section, Township, Range: 21 4N 2W  
 Landform (hillslope, terrace, etc.): terrace/depression Local relief (concave, convex, none): concave Slope (%): 1%  
 Subregion (LRR): D Lat: 41.05778864 Long: -112.069247 Datum: D WGS 1983  
 Soil Map Unit Name: Pintailake-Eimarsh-Playas complex, 0 to 1 percent slopes NWI classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil ☒, or Hydrology ☒ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____	
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	
Remarks: Saline meadow directly adjacent to emergent marsh. Problematic soils (high pH) assumed hydric in saline wetland based on vegetation community, hydrology indication, and landscape position.	

## VEGETATION – Use scientific names of plants.

<b>Tree Stratum</b> (Plot size: _____) 1. _____ 2. _____ 3. _____ 4. _____ _____ = Total Cover <b>Sapling/Shrub Stratum</b> (Plot size: _____) 1. _____ 2. _____ 3. _____ 4. _____ 5. _____ _____ = Total Cover <b>Herb Stratum</b> (Plot size: <u>5 ft. radius</u> ) 1. <u>Distichlis spicata</u> 95% Yes FAC 2. <u>Cordylanthus maritimus</u> 2% OBL 3. <u>Puccinellia nuttalliana</u> 2% FACW 4. <u>Agrostis exarata</u> 1% FACW 5. _____ 6. _____ 7. _____ 8. _____ _____ = Total Cover <b>Woody Vine Stratum</b> (Plot size: _____) 1. _____ 2. _____ _____ = Total Cover % Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B) <b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____ <b>Hydrophytic Vegetation Indicators:</b> <input checked="" type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. <b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No _____
Remarks: Vegetation passes dominance test.	

## SOIL

Sampling Point: ACJW-082

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-4	10YR 3/3	99%	10YR 6/3				Loam	
4-10.5	10YR 4/2	99%	5YR 4/6	1%	C	M	Loam	oxidized rhizospheres
10.5-16	7.5YR 4/3	34%						
	7.5YR 6/3	33%						
	7.5YR 3/1	33%						

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) (**LRR C**)
- ☐ 1 cm Muck (A9) (**LRR D**)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)

- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- ☐ 1 cm Muck (A9) (**LRR C**)
- ☐ 2 cm Muck (A10) (**LRR B**)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No ☒

Remarks:

Problematic soils, likely due to alkalinity.

## HYDROLOGY

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1) (**Nonriverine**)
- ☐ Sediment Deposits (B2) (**Nonriverine**)
- ☐ Drift Deposits (B3) (**Nonriverine**)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)

- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☒ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) (**Riverine**)
- ☐ Sediment Deposits (B2) (**Riverine**)
- ☐ Drift Deposits (B3) (**Riverine**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☒ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present? Yes \_\_\_\_\_ No ☒ Depth (inches): \_\_\_\_\_

Water Table Present? Yes \_\_\_\_\_ No ☒ Depth (inches): \_\_\_\_\_

Saturation Present? Yes \_\_\_\_\_ No ☒ Depth (inches): \_\_\_\_\_  
(includes capillary fringe)

**Wetland Hydrology Present?** Yes ☒ No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No hydrology indicators observed.

# WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: WDC ACJW-08222016-1-OUT-2 City/County: Davis County Sampling Date: 8/24/2016  
 Applicant/Owner: UDOT State: Utah Sampling Point: ACJW-08222016-1-OUT-2  
 Investigator(s): JW/MP/AC Section, Township, Range: 21 4N 2W  
 Landform (hillslope, terrace, etc.): terrace/depression Local relief (concave, convex, none): concave Slope (%): 2-3%  
 Subregion (LRR): D Lat: 41.05934566 Long: -112.0736497 Datum: D WGS 1983  
 Soil Map Unit Name: Pintailake-Eimarsh-Playas complex, 0 to 1 percent slopes NWI classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil ☒, or Hydrology ☒ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/>	
Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	
Remarks: Lack of hydric soil and hydrology indicators suggest this transitional area is not a wetland.	

## VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)  Total Number of Dominant Species Across All Strata: <u>1</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
_____ = Total Cover				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B)  Prevalence Index = B/A = _____
<b>Sapling/Shrub Stratum (Plot size: _____)</b> 1. _____ 2. _____ 3. _____ 4. _____ 5. _____ _____ = Total Cover				
<b>Herb Stratum (Plot size: <u>5 ft. radius</u>)</b> 1. <u>Distichlis spicata</u> <u>25%</u> <u>Yes</u> <u>FAC</u> 2. <u>Atriplex micrantha</u> <u>1%</u> <u></u> <u>NL</u> 3. _____ 4. _____ 5. _____ 6. _____ 7. _____ 8. _____ _____ = Total Cover				
<b>Woody Vine Stratum (Plot size: _____)</b> 1. _____ 2. _____ _____ = Total Cover				
% Bare Ground in Herb Stratum <u>74%</u> % Cover of Biotic Crust _____				
Remarks: Vegetation passes dominance test.				<b>Hydrophytic Vegetation Indicators:</b> <input checked="" type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No _____				

# SOIL

Sampling Point: ACJW-082

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-4.5	7.5YR 2.5/2	100%					organic	
4.5-7	10YR 3/3	98%	2.5YR 4/8	2%			SaLoam	
7-16	7.5YR 4/3	100%					SaClLoam	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) (**LRR C**)
- ☐ 1 cm Muck (A9) (**LRR D**)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)

- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- ☐ 1 cm Muck (A9) (**LRR C**)
- ☐ 2 cm Muck (A10) (**LRR B**)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No ☒

Remarks:

Active cow pasture with hay on surface.

# HYDROLOGY

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1) (**Nonriverine**)
- ☐ Sediment Deposits (B2) (**Nonriverine**)
- ☐ Drift Deposits (B3) (**Nonriverine**)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)

- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) (**Riverine**)
- ☐ Sediment Deposits (B2) (**Riverine**)
- ☐ Drift Deposits (B3) (**Riverine**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present? Yes \_\_\_\_\_ No ☒ Depth (inches): \_\_\_\_\_

Water Table Present? Yes \_\_\_\_\_ No ☒ Depth (inches): \_\_\_\_\_

Saturation Present? Yes \_\_\_\_\_ No ☒ Depth (inches): \_\_\_\_\_  
(includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No hydrology indicators observed.

# WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: WDC ACJW-08222016-1-OUT-3 City/County: Davis County Sampling Date: 8/25/2016  
 Applicant/Owner: UDOT State: Utah Sampling Point: ACJW-08222016-1-OUT-3  
 Investigator(s): AC/JW Section, Township, Range: 21 4N 2W  
 Landform (hillslope, terrace, etc.): bottom Local relief (concave, convex, none): concave Slope (%): 1%  
 Subregion (LRR): D Lat: 41.05790025 Long: -112.069175 Datum: D WGS 1983  
 Soil Map Unit Name: Pintailake-Eimarsh-Playas complex, 0 to 1 percent slopes NWI classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil ☒, or Hydrology ☒ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/>	
Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	
Remarks:  Sampled area is not a wetland.	

## VEGETATION – Use scientific names of plants.

<b>Tree Stratum</b> (Plot size: _____) 1. _____ 2. _____ 3. _____ 4. _____ _____ = Total Cover <b>Sapling/Shrub Stratum</b> (Plot size: <u>15 ft. radius</u> ) 1. <u>Sarcobatus vermiculatus</u> <u>25%</u> <u>Yes</u> <u>FACU</u> 2. _____ 3. _____ 4. _____ 5. _____ _____ = Total Cover <b>Herb Stratum</b> (Plot size: <u>5 ft. radius</u> ) 1. <u>Distichlis spicata</u> <u>10%</u> <u>Yes</u> <u>FAC</u> 2. <u>Bromus tectorum</u> <u>5%</u> <u>Yes</u> <u>NL</u> 3. <u>Sporobolus airoides</u> <u>1%</u> <u>FAC</u> 4. _____ 5. _____ 6. _____ 7. _____ 8. _____ _____ = Total Cover <b>Woody Vine Stratum</b> (Plot size: _____) 1. _____ 2. _____ _____ = Total Cover % Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>33%</u> (A/B) <b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species <u>11</u> x 3 = <u>33</u> FACU species <u>25</u> x 4 = <u>100</u> UPL species <u>5</u> x 5 = <u>25</u> Column Totals: <u>41</u> (A) <u>158</u> (B) Prevalence Index = B/A = <u>3.85</u> <b>Hydrophytic Vegetation Indicators:</b> _____ Dominance Test is >50% _____ Prevalence Index is ≤3.0 <sup>1</sup> _____ Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. <b>Hydrophytic Vegetation Present?</b> Yes _____ No <input checked="" type="checkbox"/>
Remarks:  Vegetation is not hydrophytic.	



## SOIL

Sampling Point: ACJW-082

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-1	10YR 3/3	100%					Loam	roots
1-6	10YR 4/3	99%	7.5YR 6/4	1%			Salloam	
6-14	7.5YR 6/4	50%					Clloam	
	7.5YR 4/4	20%						
	7.5YR 2.5/1	30%						

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) (**LRR C**)
- ☐ 1 cm Muck (A9) (**LRR D**)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)

- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- ☐ 1 cm Muck (A9) (**LRR C**)
- ☐ 2 cm Muck (A10) (**LRR B**)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No ☒

Remarks:

No hydric indicators observed in soil profile.

## HYDROLOGY

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1) (**Nonriverine**)
- ☐ Sediment Deposits (B2) (**Nonriverine**)
- ☐ Drift Deposits (B3) (**Nonriverine**)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)

- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) (**Riverine**)
- ☐ Sediment Deposits (B2) (**Riverine**)
- ☐ Drift Deposits (B3) (**Riverine**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present? Yes \_\_\_\_\_ No ☒ Depth (inches): \_\_\_\_\_

Water Table Present? Yes \_\_\_\_\_ No ☒ Depth (inches): \_\_\_\_\_

Saturation Present? Yes \_\_\_\_\_ No ☒ Depth (inches): \_\_\_\_\_  
(includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No hydrology indicators observed.

# WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: WDC ACJW-08262016-1-IN City/County: Davis County Sampling Date: 8/26/2016  
 Applicant/Owner: UDOT State: Utah Sampling Point: ACJW-08262016-1  
 Investigator(s): AC/JW Section, Township, Range: 21 4N 2W  
 Landform (hillslope, terrace, etc.): terrace/depression Local relief (concave, convex, none): concave Slope (%): 1%  
 Subregion (LRR): D Lat: 41.05983638 Long: -112.0676319 Datum: D WGS 1983  
 Soil Map Unit Name: Pintailake-Eimarsh-Playas complex, 0 to 1 percent slopes NWI classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil ☒, or Hydrology ☒ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____	
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	
Remarks: Saline wetland. Problematic soils (high pH) assumed hydric in saline wetland based on vegetation community, hydrology indication, and landscape position.	

## VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)  Total Number of Dominant Species Across All Strata: <u>2</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
_____ = Total Cover				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B)  Prevalence Index = B/A = _____
<b>Sapling/Shrub Stratum (Plot size: <u>15 ft. radius</u>)</b> 1. <u>Allenrolfea occidentalis</u> <u>25%</u> Yes <u>FACW</u> 2. <u>Sarcobatus vermiculatus</u> <u>2%</u> _____ <u>FACU</u> 3. _____ 4. _____ 5. _____ _____ = Total Cover				
<b>Herb Stratum (Plot size: <u>5 ft. radius</u>)</b> 1. <u>Suaeda occidentalis</u> <u>25%</u> Yes <u>FACW</u> 2. _____ 3. _____ 4. _____ 5. _____ 6. _____ 7. _____ 8. _____ _____ = Total Cover				
<b>Woody Vine Stratum (Plot size: _____)</b> 1. _____ 2. _____ _____ = Total Cover				
% Bare Ground in Herb Stratum <u>75%</u> % Cover of Biotic Crust _____				

**Hydrophytic Vegetation Indicators:**  
☒ Dominance Test is >50%  
☐ Prevalence Index is ≤3.0<sup>1</sup>  
☐ Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)  
☐ Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)  
<sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes ☒ No \_\_\_\_\_

Remarks:  
 Vegetation passes dominance test. Mostly unvegetated. Some seepweed, pickleweed, and iodine bush in other areas.

# SOIL

Sampling Point: ACJW-0824

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-1.5	10YR 4/3	100%					LoSand	
1.5-8	10YR 4/3	100%					SaLoam	
8-14	7.5YR 6/4	70%					Clay	
	7.5YR 3/1	30%						

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) (**LRR C**)
- ☐ 1 cm Muck (A9) (**LRR D**)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)

- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- ☐ 1 cm Muck (A9) (**LRR C**)
- ☐ 2 cm Muck (A10) (**LRR B**)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes ☒ No ☐

Remarks:

Problematic soil likely due to alkalinity. Assumed hydric based on vegetation community, hydrology indication, and landscape position.

# HYDROLOGY

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1) (**Nonriverine**)
- ☐ Sediment Deposits (B2) (**Nonriverine**)
- ☐ Drift Deposits (B3) (**Nonriverine**)
- ☒ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)

- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) (**Riverine**)
- ☐ Sediment Deposits (B2) (**Riverine**)
- ☐ Drift Deposits (B3) (**Riverine**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☒ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present? Yes ☐ No ☒ Depth (inches): \_\_\_\_\_

Water Table Present? Yes ☐ No ☒ Depth (inches): \_\_\_\_\_

Saturation Present? Yes ☐ No ☒ Depth (inches): \_\_\_\_\_  
(includes capillary fringe)

**Wetland Hydrology Present?** Yes ☒ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Saline flat area.

# WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: WDC ACJW-08262016-1-OUT City/County: Davis County Sampling Date: 8/26/2016  
 Applicant/Owner: UDOT State: Utah Sampling Point: ACJW-08262016-1-OUT  
 Investigator(s): AC/JW Section, Township, Range: 21 4N 2W  
 Landform (hillslope, terrace, etc.): bottom Local relief (concave, convex, none): concave Slope (%): 1%  
 Subregion (LRR): D Lat: 41.05988381 Long: -112.0676922 Datum: D WGS 1983  
 Soil Map Unit Name: Pintailake-Eimarsh-Playas complex, 0 to 1 percent slopes NWI classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil ☒, or Hydrology ☒ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/>	
Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	
Remarks:  Upland area next to saline flat.	

## VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)  Total Number of Dominant Species Across All Strata: <u>2</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
_____ = Total Cover				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species <u>6</u> x 2 = <u>12</u> FAC species <u>10</u> x 3 = <u>30</u> FACU species <u>71</u> x 4 = <u>284</u> UPL species <u>5</u> x 5 = <u>25</u> Column Totals: <u>92</u> (A) <u>351</u> (B)  Prevalence Index = B/A = <u>3.81</u>
<b>Sapling/Shrub Stratum (Plot size: <u>15 ft. radius</u>)</b> 1. <u>Allenrolfea occidentalis</u> <u>5%</u> _____ <u>FACW</u> 2. <u>Sarcobatus vermiculatus</u> <u>20%</u> <u>Yes</u> <u>FACU</u> 3. <u>Unknown sage</u> <u>1%</u> _____ 4. <u>Opuntia sp.</u> <u>2%</u> _____ <u>NL</u> 5. _____ _____ = Total Cover				
<b>Herb Stratum (Plot size: <u>5 ft. radius</u>)</b> 1. <u>Hordeum pusillum</u> <u>50%</u> <u>Yes</u> <u>FACU</u> 2. <u>Distichlis spicata</u> <u>10%</u> _____ <u>FAC</u> 3. <u>Bromus racemosus</u> <u>1%</u> _____ <u>NL</u> 4. <u>Lepidium perfoliatum</u> <u>1%</u> _____ <u>FACU</u> 5. <u>Unknown forb</u> <u>1%</u> _____ 6. <u>Agrostis exarata</u> <u>1%</u> _____ <u>FACW</u> 7. _____ 8. _____ _____ = Total Cover				
<b>Woody Vine Stratum (Plot size: _____)</b> 1. _____ 2. _____ _____ = Total Cover				
% Bare Ground in Herb Stratum <u>36%</u> % Cover of Biotic Crust _____				
<b>Hydrophytic Vegetation Indicators:</b> ___ Dominance Test is >50% ___ Prevalence Index is ≤3.0 <sup>1</sup> ___ Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.				
<b>Hydrophytic Vegetation Present?</b> Yes _____ No <input checked="" type="checkbox"/>				
Remarks:  Upland community.				

# SOIL

Sampling Point: ACJW-0824

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-2	10YR 4/2	100%					LoSand	
2-9	10YR 4/3	100%					SaLoam	
9-13	10YR 4/4	100%					SaLoam	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) (**LRR C**)
- ☐ 1 cm Muck (A9) (**LRR D**)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)

- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- ☐ 1 cm Muck (A9) (**LRR C**)
- ☐ 2 cm Muck (A10) (**LRR B**)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No ☒

Remarks:

No hydric indicators observed in soil profile.

# HYDROLOGY

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1) (**Nonriverine**)
- ☐ Sediment Deposits (B2) (**Nonriverine**)
- ☐ Drift Deposits (B3) (**Nonriverine**)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)

- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) (**Riverine**)
- ☐ Sediment Deposits (B2) (**Riverine**)
- ☐ Drift Deposits (B3) (**Riverine**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present? Yes \_\_\_\_\_ No ☒ Depth (inches): \_\_\_\_\_

Water Table Present? Yes \_\_\_\_\_ No ☒ Depth (inches): \_\_\_\_\_

Saturation Present? Yes \_\_\_\_\_ No ☒ Depth (inches): \_\_\_\_\_  
(includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No hydrology indicators observed.

# WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: WDC ACJW-08262016-2-IN City/County: Davis County Sampling Date: 8/26/2016  
 Applicant/Owner: UDOT State: Utah Sampling Point: ACJW-08262016-2-IN  
 Investigator(s): AC/JW Section, Township, Range: 21 4N 2W  
 Landform (hillslope, terrace, etc.): terrace/depression Local relief (concave, convex, none): concave Slope (%): 1%  
 Subregion (LRR): D Lat: 41.05995415 Long: -112.0661472 Datum: D WGS 1983  
 Soil Map Unit Name: Warm Springs fine sandy loam, 0 to 1 percent slopes NWI classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____	
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	
Remarks:  Sampled area is a wetland.	

## VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)  Total Number of Dominant Species Across All Strata: <u>2</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
_____ = Total Cover				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B)  Prevalence Index = B/A = _____
<b>Sapling/Shrub Stratum (Plot size: _____)</b> 1. _____ 2. _____ 3. _____ 4. _____ 5. _____ _____ = Total Cover				
<b>Herb Stratum (Plot size: _____)</b> 1. <u>Eleocharis palustris</u> 60% Yes OBL 2. <u>Trifolium fragiferum</u> 39% Yes FAC 3. <u>Schoenoplectus pungens</u> 1% OBL 4. _____ 5. _____ 6. _____ 7. _____ 8. _____ _____ = Total Cover				
<b>Woody Vine Stratum (Plot size: _____)</b> 1. _____ 2. _____ _____ = Total Cover				
% Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____				
Remarks:  Vegetation passes dominance test.				<b>Hydrophytic Vegetation Indicators:</b> <input checked="" type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.  <b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No _____



## SOIL

Sampling Point: ACJW-0824

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-3	10YR 2/2	100%					LoClay	
3-10	10YR 3/2	90%	10YR 6/2	5%			SaLoam	
			10YR 3/1	5%				
10-16	10YR 6/2	99%	Gley 1 2.5/N	1%			SaClLoam	Gley along root pores

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

- ☐ Histosol (A1)  
☐ Histic Epipedon (A2)  
☐ Black Histic (A3)  
☐ Hydrogen Sulfide (A4)  
☐ Stratified Layers (A5) (**LRR C**)  
☐ 1 cm Muck (A9) (**LRR D**)  
☒ Depleted Below Dark Surface (A11)  
☐ Thick Dark Surface (A12)  
☐ Sandy Mucky Mineral (S1)  
☐ Sandy Gleyed Matrix (S4)

- ☐ Sandy Redox (S5)  
☐ Stripped Matrix (S6)  
☐ Loamy Mucky Mineral (F1)  
☐ Loamy Gleyed Matrix (F2)  
☐ Depleted Matrix (F3)  
☒ Redox Dark Surface (F6)  
☐ Depleted Dark Surface (F7)  
☐ Redox Depressions (F8)  
☐ Vernal Pools (F9)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- ☐ 1 cm Muck (A9) (**LRR C**)  
☐ 2 cm Muck (A10) (**LRR B**)  
☐ Reduced Vertic (F18)  
☐ Red Parent Material (TF2)  
☐ Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes ☒ No ☐

Remarks:

Soil profile fits Depleted Below Dark Surface (A11) indicator and Redox Dark Surface (F6).

## HYDROLOGY

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)  
☐ High Water Table (A2)  
☒ Saturation (A3)  
☐ Water Marks (B1) (**Nonriverine**)  
☐ Sediment Deposits (B2) (**Nonriverine**)  
☐ Drift Deposits (B3) (**Nonriverine**)  
☐ Surface Soil Cracks (B6)  
☐ Inundation Visible on Aerial Imagery (B7)  
☐ Water-Stained Leaves (B9)

- ☐ Salt Crust (B11)  
☐ Biotic Crust (B12)  
☐ Aquatic Invertebrates (B13)  
☐ Hydrogen Sulfide Odor (C1)  
☐ Oxidized Rhizospheres along Living Roots (C3)  
☐ Presence of Reduced Iron (C4)  
☐ Recent Iron Reduction in Tilled Soils (C6)  
☐ Thin Muck Surface (C7)  
☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) (**Riverine**)  
☐ Sediment Deposits (B2) (**Riverine**)  
☐ Drift Deposits (B3) (**Riverine**)  
☐ Drainage Patterns (B10)  
☐ Dry-Season Water Table (C2)  
☐ Crayfish Burrows (C8)  
☐ Saturation Visible on Aerial Imagery (C9)  
☐ Shallow Aquitard (D3)  
☒ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present? Yes ☐ No ☒ Depth (inches): \_\_\_\_\_

Water Table Present? Yes ☐ No ☒ Depth (inches): \_\_\_\_\_

Saturation Present? Yes ☒ No ☐ Depth (inches): \_\_\_\_\_  
(includes capillary fringe)

**Wetland Hydrology Present?** Yes ☒ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Hydrology indicator (A3) Saturation present.

# WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: WDC ACJW-08262016-2-OUT City/County: Davis County Sampling Date: 8/26/2016  
 Applicant/Owner: UDOT State: Utah Sampling Point: ACJW-08262016-2-OUT  
 Investigator(s): AC/JW Section, Township, Range: 21 4N 2W  
 Landform (hillslope, terrace, etc.): terrace/depression Local relief (concave, convex, none): concave Slope (%): 1%  
 Subregion (LRR): D Lat: 41.05980181 Long: -112.0661457 Datum: D WGS 1983  
 Soil Map Unit Name: Warm Springs fine sandy loam, 0 to 1 percent slopes NWI classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/>	
Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	
Remarks:  Upland vegetation.	

## VEGETATION – Use scientific names of plants.

<b>Tree Stratum</b> (Plot size: _____) 1. _____ 2. _____ 3. _____ 4. _____ _____ = Total Cover <b>Sapling/Shrub Stratum</b> (Plot size: _____) 1. _____ 2. _____ 3. _____ 4. _____ 5. _____ _____ = Total Cover <b>Herb Stratum</b> (Plot size: <u>5 ft. radius</u> ) 1. <u>Thinopyrum intermedium</u> 30% Yes NL 2. <u>Schedonorus pratensis</u> 30% Yes FACU 3. <u>Grindelia squarrosa</u> 1% FACU 4. <u>Bromus racemosus</u> 1% NL 5. _____ 6. _____ 7. _____ 8. _____ _____ = Total Cover <b>Woody Vine Stratum</b> (Plot size: _____) 1. _____ 2. _____ _____ = Total Cover % Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B) <b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species <u>31</u> x 4 = <u>124</u> UPL species <u>31</u> x 5 = <u>155</u> Column Totals: <u>62</u> (A) <u>279</u> (B) Prevalence Index = B/A = <u>4.5</u> <b>Hydrophytic Vegetation Indicators:</b> ___ Dominance Test is >50% ___ Prevalence Index is ≤3.0 <sup>1</sup> ___ Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. <b>Hydrophytic Vegetation Present?</b> Yes _____ No <input checked="" type="checkbox"/>
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Remarks:

Not sure on fescue ID. Heavily grazed cow pasture. Upland area next to wet meadow with spike rush and strawberry clover.

# SOIL

Sampling Point: ACJW-0824

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-3.5	10YR 2/2	100%					SalLoam	
3.5-6	10YR 3/2	98%	10YR 4/6	2%	C	M	LoSand	
6-15	10YR 3/3	99%	10YR 4/6	1%	C	M	LoSand	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) (**LRR C**)
- ☐ 1 cm Muck (A9) (**LRR D**)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)

- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- ☐ 1 cm Muck (A9) (**LRR C**)
- ☐ 2 cm Muck (A10) (**LRR B**)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No ☒

Remarks:

No hydric indicators observed in soil profile.

# HYDROLOGY

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1) (**Nonriverine**)
- ☐ Sediment Deposits (B2) (**Nonriverine**)
- ☐ Drift Deposits (B3) (**Nonriverine**)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)

- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) (**Riverine**)
- ☐ Sediment Deposits (B2) (**Riverine**)
- ☐ Drift Deposits (B3) (**Riverine**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present? Yes \_\_\_\_\_ No \_\_\_\_\_ Depth (inches): \_\_\_\_\_

Water Table Present? Yes \_\_\_\_\_ No \_\_\_\_\_ Depth (inches): \_\_\_\_\_

Saturation Present? Yes \_\_\_\_\_ No \_\_\_\_\_ Depth (inches): \_\_\_\_\_  
(includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No hydrology indicators observed.

# WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: WDC ACMP-08222016-1-IN City/County: Davis County Sampling Date: 8/22/2016  
 Applicant/Owner: UDOT State: Utah Sampling Point: ACMP-08222016-1  
 Investigator(s): JW/MP/AC Section, Township, Range: 21 4N 2W  
 Landform (hillslope, terrace, etc.): terrace/depression Local relief (concave, convex, none): concave Slope (%): 1%  
 Subregion (LRR): D Lat: 41.05911026 Long: -112.0736635 Datum: D WGS 1983  
 Soil Map Unit Name: Pintailake-Eimarsh-Playas complex, 0 to 1 percent slopes NWI classification: PEM1/USA

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)  
 Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐  
 Are Vegetation ☐, Soil ☒, or Hydrology ☒ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
Remarks:  In point in saline wetland			

## VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)  Total Number of Dominant Species Across All Strata: <u>2</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
_____ = Total Cover				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B)  Prevalence Index = B/A = _____
<b>Sapling/Shrub Stratum</b> (Plot size: _____)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	<b>Hydrophytic Vegetation Indicators:</b> <input checked="" type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
5. _____	_____	_____	_____	
_____ = Total Cover				
<b>Herb Stratum</b> (Plot size: <u>5 ft. radius</u> )				
1. <u>Suaeda occidentalis</u>	<u>30%</u>	<u>Yes</u>	<u>FACW</u>	
2. <u>Distichlis spicata</u>	<u>15%</u>	<u>Yes</u>	<u>FAC</u>	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
8. _____	_____	_____	_____	
_____ = Total Cover				
<b>Woody Vine Stratum</b> (Plot size: _____)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
_____ = Total Cover				
% Bare Ground in Herb Stratum <u>55%</u> % Cover of Biotic Crust _____				
Remarks:  Vegetation passes dominance test.				

# SOIL

Sampling Point: ACMP-0824

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-6	10YR 4/2	97%	7.5YR 5/2	3%			Clay	
6-18	7.5YR 5/4	80%	7.5YR 7/1	5%	D	M	SiClay	
			7.5YR 5/2	15%	D	M		

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) (**LRR C**)
- ☐ 1 cm Muck (A9) (**LRR D**)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)

- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☒ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- ☐ 1 cm Muck (A9) (**LRR C**)
- ☐ 2 cm Muck (A10) (**LRR B**)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes ☒ No ☐

Remarks:

Soil profile fits Depleted Matrix (F3) indicator.

# HYDROLOGY

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1) (**Nonriverine**)
- ☐ Sediment Deposits (B2) (**Nonriverine**)
- ☐ Drift Deposits (B3) (**Nonriverine**)
- ☒ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)

- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☒ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) (**Riverine**)
- ☐ Sediment Deposits (B2) (**Riverine**)
- ☐ Drift Deposits (B3) (**Riverine**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☒ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present? Yes ☐ No ☒ Depth (inches): \_\_\_\_\_

Water Table Present? Yes ☐ No ☒ Depth (inches): \_\_\_\_\_

Saturation Present? Yes ☐ No ☒ Depth (inches): \_\_\_\_\_  
(includes capillary fringe)

**Wetland Hydrology Present?** Yes ☒ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Hydrology indicators (B6) and (C4)observed.

# WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: WDC ACMP-08222016-1-OUT City/County: Davis County Sampling Date: 8/22/2016  
 Applicant/Owner: UDOT State: Utah Sampling Point: ACMP-08222016-1-OUT  
 Investigator(s): JW/MP/AC Section, Township, Range: 21 4N 2W  
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): concave Slope (%): 1%  
 Subregion (LRR): D Lat: 41.058892 Long: -112.073676 Datum: D WGS 1983  
 Soil Map Unit Name: Pintailake-Eimarsh-Playas complex, 0 to 1 percent slopes NWI classification: PEM1/USA

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)  
 Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐  
 Are Vegetation ☐, Soil ☒, or Hydrology ☒ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Hydic Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		
Remarks: Upland area with greasewood.		

## VEGETATION – Use scientific names of plants.

<b>Tree Stratum</b> (Plot size: _____) 1. _____ Absolute % Cover _____ Dominant Species? _____ Indicator Status _____ 2. _____ 3. _____ 4. _____ _____ = Total Cover <b>Sapling/Shrub Stratum</b> (Plot size: <u>15 ft. radius</u> ) 1. <u>Allenrolfea occidentalis</u> <u>1</u> _____ <u>FACW</u> 2. <u>Sarcobatus vermiculatus</u> <u>10</u> <u>Yes</u> <u>FACU</u> 3. _____ 4. _____ 5. _____ _____ = Total Cover <b>Herb Stratum</b> (Plot size: <u>5 ft. radius</u> ) 1. <u>Distichlis spicata</u> <u>45%</u> <u>Yes</u> <u>FAC</u> 2. <u>Hordeum pusillum</u> <u>20%</u> <u>Yes</u> <u>FACU</u> 3. <u>Suaeda occidentalis</u> <u>5%</u> _____ <u>FACW</u> 4. <u>Sporobolus airoides</u> <u>2%</u> _____ <u>FAC</u> 5. <u>Agrostis exarata</u> <u>3%</u> _____ <u>FAC</u> 6. <u>Polygonum argyrocoleon</u> <u>5%</u> _____ <u>FAC</u> 7. _____ 8. _____ _____ = Total Cover <b>Woody Vine Stratum</b> (Plot size: _____) 1. _____ 2. _____ _____ = Total Cover % Bare Ground in Herb Stratum <u>20%</u> % Cover of Biotic Crust <u>10%</u>	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>33%</u> (A/B) <b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species <u>6</u> x 2 = <u>12</u> FAC species <u>55</u> x 3 = <u>165</u> FACU species <u>30</u> x 4 = <u>120</u> UPL species _____ x 5 = _____ Column Totals: <u>91</u> (A) <u>297</u> (B) Prevalence Index = B/A = <u>3.26</u> <b>Hydrophytic Vegetation Indicators:</b> ___ Dominance Test is >50% ___ Prevalence Index is ≤3.0 <sup>1</sup> ___ Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. <b>Hydrophytic Vegetation Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
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Remarks:

Saline scrub community not hydrophytic.



# SOIL

Sampling Point: ACMP-0824

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-2	10YR 3/2	100%					SaLoam	
2-11	10YR 4/3	100%					SaClLoam	
11-18	7.5YR 4/3	100%					SaClLoam	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) (**LRR C**)
- ☐ 1 cm Muck (A9) (**LRR D**)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)

- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- ☐ 1 cm Muck (A9) (**LRR C**)
- ☐ 2 cm Muck (A10) (**LRR B**)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No ☒

Remarks:

# HYDROLOGY

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1) (**Nonriverine**)
- ☐ Sediment Deposits (B2) (**Nonriverine**)
- ☐ Drift Deposits (B3) (**Nonriverine**)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)

- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) (**Riverine**)
- ☐ Sediment Deposits (B2) (**Riverine**)
- ☐ Drift Deposits (B3) (**Riverine**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present? Yes \_\_\_\_\_ No \_\_\_\_\_ Depth (inches): \_\_\_\_\_

Water Table Present? Yes \_\_\_\_\_ No \_\_\_\_\_ Depth (inches): \_\_\_\_\_

Saturation Present? Yes \_\_\_\_\_ No \_\_\_\_\_ Depth (inches): \_\_\_\_\_  
(includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Dry to 18". No indicators observed.

# WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: WDC MP-08252016-1-IN City/County: Davis County Sampling Date: 8/25/2016  
 Applicant/Owner: UDOT State: Utah Sampling Point: MP-08252016  
 Investigator(s): MP Section, Township, Range: 21 4N 2W  
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): concave Slope (%): 0%  
 Subregion (LRR): D Lat: 41.05653597 Long: -112.0725807 Datum: D WGS 1983  
 Soil Map Unit Name: Pintailake-Eimarsh-Playas complex, 0 to 1 percent slopes NWI classification: PEM1/USA

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)  
 Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐  
 Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Remarks: Supplemental point for wetland complex. Emergent marsh with standing water. Hydric soils assumed.	

## VEGETATION – Use scientific names of plants.

<b>Tree Stratum</b> (Plot size: _____) 1. _____ 2. _____ 3. _____ 4. _____ _____ = Total Cover <b>Sapling/Shrub Stratum</b> (Plot size: _____) 1. _____ 2. _____ 3. _____ 4. _____ 5. _____ _____ = Total Cover <b>Herb Stratum</b> (Plot size: <u>5 ft. radius</u> ) 1. <u>Eleocharis palustris</u> 30% Yes OBL 2. <u>Schoenoplectus pungens</u> 80% Yes OBL 3. <u>Typha sp.</u> 10% OBL 4. <u>Distichlis spicata</u> 10% FAC 5. _____ 6. _____ 7. _____ 8. _____ _____ = Total Cover <b>Woody Vine Stratum</b> (Plot size: _____) 1. _____ 2. _____ _____ = Total Cover % Bare Ground in Herb Stratum <u>10</u> % Cover of Biotic Crust _____	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B) <b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____ <b>Hydrophytic Vegetation Indicators:</b> <input checked="" type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. <b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
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Remarks:

Emergent Marsh

## SOIL

Sampling Point: MP-08252 

[illegible]

## HYDROLOGY

Wetland Hydrology Indicators:		
Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (2 or more required)
<input checked="" type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) ( <b>Riverine</b> )
<input checked="" type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) ( <b>Riverine</b> )
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) ( <b>Riverine</b> )
<input type="checkbox"/> Water Marks (B1) ( <b>Nonriverine</b> )	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) ( <b>Nonriverine</b> )	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3) ( <b>Nonriverine</b> )	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>2</u> Water Table Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>0</u> Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>0</u> (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks: 2 inches of standing water.		

# WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: WDC MPDG-07292016-2-IN City/County: Davis County Sampling Date: 7/29/2016  
 Applicant/Owner: UDOT State: Utah Sampling Point: MPDG-07292016-2-IN  
 Investigator(s): MP/DG Section, Township, Range: 21 4N 2W  
 Landform (hillslope, terrace, etc.): terrace/depression Local relief (concave, convex, none): concave Slope (%): 1  
 Subregion (LRR): D Lat: 41.06047078 Long: -112.0771199 Datum: D WGS 1983  
 Soil Map Unit Name: Pintailake-Eimarsh-Playas complex, 0 to 1 percent slopes NWI classification: PEM1F

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)  
 Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐  
 Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Remarks: Current hydrology likely from irrigation given dry time of year.	

## VEGETATION – Use scientific names of plants.

<b>Tree Stratum</b> (Plot size: _____) 1. _____ 2. _____ 3. _____ 4. _____ _____ = Total Cover <b>Sapling/Shrub Stratum</b> (Plot size: _____) 1. _____ 2. _____ 3. _____ 4. _____ 5. _____ _____ = Total Cover <b>Herb Stratum</b> (Plot size: <u>5 ft. radius</u> ) 1. <u>Trifolium fragiferum</u> 40% Yes FAC 2. <u>Carex praegracilis</u> 30% Yes FACW 3. <u>Schedonorus pratensis</u> 30% Yes FACU 4. <u>Distichlis spicata</u> 5% FAC 5. _____ 6. _____ 7. _____ 8. _____ _____ = Total Cover <b>Woody Vine Stratum</b> (Plot size: _____) 1. _____ 2. _____ _____ = Total Cover % Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>66.7%</u> (A/B) <b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____ <b>Hydrophytic Vegetation Indicators:</b> <input checked="" type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. <b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Remarks: Heavily grazed by horses.	

## SOIL

Sampling Point: MPDG-07

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-2	10YR 4/3	100%					Organic	
2-10	10YR 5/3	85%	10YR 4/1	10%	D	M	SiClLoam	
			10YR 5/8	5%	C	M		
10-18	10YR 5/3	60%	10YR 4/1	20%	D	M	SiClLoam	
			10YR 5/8	20%	C	M		

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

☐ Histosol (A1)  
☐ Histic Epipedon (A2)  
☐ Black Histic (A3)  
☐ Hydrogen Sulfide (A4)  
☐ Stratified Layers (A5) (**LRR C**)  
☐ 1 cm Muck (A9) (**LRR D**)  
☐ Depleted Below Dark Surface (A11)  
☐ Thick Dark Surface (A12)  
☐ Sandy Mucky Mineral (S1)  
☐ Sandy Gleyed Matrix (S4)

☐ Sandy Redox (S5)  
☐ Stripped Matrix (S6)  
☐ Loamy Mucky Mineral (F1)  
☐ Loamy Gleyed Matrix (F2)  
☐ Depleted Matrix (F3)  
☐ Redox Dark Surface (F6)  
☐ Depleted Dark Surface (F7)  
☒ Redox Depressions (F8)  
☐ Vernal Pools (F9)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

☐ 1 cm Muck (A9) (**LRR C**)  
☐ 2 cm Muck (A10) (**LRR B**)  
☐ Reduced Vertic (F18)  
☐ Red Parent Material (TF2)  
☐ Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present? Yes ☒ No ☐**

Remarks:

## HYDROLOGY

**Wetland Hydrology Indicators:**

**Primary Indicators (minimum of one required; check all that apply)**

☐ Surface Water (A1)  
☐ High Water Table (A2)  
☒ Saturation (A3)  
☐ Water Marks (B1) (**Nonriverine**)  
☐ Sediment Deposits (B2) (**Nonriverine**)  
☐ Drift Deposits (B3) (**Nonriverine**)  
☐ Surface Soil Cracks (B6)  
☐ Inundation Visible on Aerial Imagery (B7)  
☐ Water-Stained Leaves (B9)

☐ Salt Crust (B11)  
☐ Biotic Crust (B12)  
☐ Aquatic Invertebrates (B13)  
☐ Hydrogen Sulfide Odor (C1)  
☐ Oxidized Rhizospheres along Living Roots (C3)  
☐ Presence of Reduced Iron (C4)  
☐ Recent Iron Reduction in Tilled Soils (C6)  
☐ Thin Muck Surface (C7)  
☐ Other (Explain in Remarks)

**Secondary Indicators (2 or more required)**

☐ Water Marks (B1) (**Riverine**)  
☐ Sediment Deposits (B2) (**Riverine**)  
☐ Drift Deposits (B3) (**Riverine**)  
☐ Drainage Patterns (B10)  
☐ Dry-Season Water Table (C2)  
☐ Crayfish Burrows (C8)  
☐ Saturation Visible on Aerial Imagery (C9)  
☐ Shallow Aquitard (D3)  
☐ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present? Yes ☐ No ☒ Depth (inches): \_\_\_\_\_

Water Table Present? Yes ☐ No ☒ Depth (inches): \_\_\_\_\_

Saturation Present? Yes ☒ No ☐ Depth (inches): 2  
(includes capillary fringe)

**Wetland Hydrology Present? Yes ☒ No ☐**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Standing water down gradient a few feet.

# WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: WDC MPDG-07292016-2-OUT City/County: Davis County Sampling Date: 7/29/2016  
 Applicant/Owner: UDOT State: Utah Sampling Point: MPDG-07292016-2-OUT  
 Investigator(s): MP/DG Section, Township, Range: 21 4N 2W  
 Landform (hillslope, terrace, etc.): terrace/depression Local relief (concave, convex, none): concave Slope (%): <1%  
 Subregion (LRR): D Lat: 41.06049394 Long: -112.0771082 Datum: D WGS 1983  
 Soil Map Unit Name: Pintailake-Eimarsh-Playas complex, 0 to 1 percent slopes NWI classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____	
Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	
Remarks:	

## VEGETATION – Use scientific names of plants.

<b>Tree Stratum</b> (Plot size: _____) 1. _____ 2. _____ 3. _____ 4. _____ _____ = Total Cover <b>Sapling/Shrub Stratum</b> (Plot size: _____) 1. _____ 2. _____ 3. _____ 4. _____ 5. _____ _____ = Total Cover <b>Herb Stratum</b> (Plot size: <u>5 ft. radius</u> ) 1. <u>Thinopyrum intermedium</u> 60% Yes NL 2. <u>Distichlis spicata</u> 40% Yes FAC 3. <u>Poa secunda</u> 25% FACU 4. <u>Grindelia squarrosa</u> 5% FACU 5. <u>Medicago sativa</u> 2% UPL 6. <u>Epilobium sp.</u> 1% FACW 7. _____ 8. _____ 133 = Total Cover <b>Woody Vine Stratum</b> (Plot size: _____) 1. _____ 2. _____ _____ = Total Cover % Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50%</u> (A/B) <b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species <u>1</u> x 2 = <u>2</u> FAC species <u>40</u> x 3 = <u>120</u> FACU species <u>30</u> x 4 = <u>120</u> UPL species <u>62</u> x 5 = <u>310</u> Column Totals: <u>133</u> (A) <u>552</u> (B) Prevalence Index = B/A = <u>4.15</u> <b>Hydrophytic Vegetation Indicators:</b> ___ Dominance Test is >50% ___ Prevalence Index is ≤3.0 <sup>1</sup> ___ Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. <b>Hydrophytic Vegetation Present?</b> Yes _____ No <input checked="" type="checkbox"/>
Remarks:	



# SOIL

Sampling Point: MPDG-07

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-3	10YR 3/2	100%					SiCl	
3-7	10YR 5/2	90%	10YR 2/1	10%	C	M	Clay	
7-9	7.5YR 6/3	100%					SiClav	
9-18	7.5YR 6/3	100%					Clay	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) (**LRR C**)
- ☐ 1 cm Muck (A9) (**LRR D**)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)

- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☒ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- ☐ 1 cm Muck (A9) (**LRR C**)
- ☐ 2 cm Muck (A10) (**LRR B**)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes ☒ No ☐

Remarks:

# HYDROLOGY

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1) (**Nonriverine**)
- ☐ Sediment Deposits (B2) (**Nonriverine**)
- ☐ Drift Deposits (B3) (**Nonriverine**)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)

- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) (**Riverine**)
- ☐ Sediment Deposits (B2) (**Riverine**)
- ☐ Drift Deposits (B3) (**Riverine**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present? Yes ☐ No ☒ Depth (inches): \_\_\_\_\_

Water Table Present? Yes ☐ No ☒ Depth (inches): \_\_\_\_\_

Saturation Present? Yes ☐ No ☒ Depth (inches): \_\_\_\_\_  
(includes capillary fringe)

**Wetland Hydrology Present?** Yes ☐ No ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

# WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: WDC ACDG-07272016-2-IN City/County: Davis County Sampling Date: 7/27/2016  
 Applicant/Owner: UDOT State: Utah Sampling Point: ACDG-072722  
 Investigator(s): DG/AC Section, Township, Range: 20 4N 2W  
 Landform (hillslope, terrace, etc.): depression Local relief (concave, convex, none): concave Slope (%): <1%  
 Subregion (LRR): D Lat: 41.06612691 Long: -112.0949523 Datum: D WGS 1983  
 Soil Map Unit Name: Eimarsh-Playas-Pintailake complex, 0 to 1 percent slopes NWI classification: PEMc

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)  
 Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐  
 Are Vegetation ☐, Soil ☒, or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Remarks:  Overlays NWI wetland polygon.	

## VEGETATION – Use scientific names of plants.

<b>Tree Stratum</b> (Plot size: _____) 1. _____ 2. _____ 3. _____ 4. _____ _____ = Total Cover <b>Sapling/Shrub Stratum</b> (Plot size: _____) 1. _____ 2. _____ 3. _____ 4. _____ 5. _____ _____ = Total Cover <b>Herb Stratum</b> (Plot size: <u>5 ft. radius</u> ) 1. <u>Distichlis spicata</u> 80% Yes FAC 2. <u>Cordylanthus maritimus</u> 5% OBL 3. <u>Hordeum jubatum</u> 2% FAC 4. <u>Puccinellia nuttalliana</u> 5% FACW 5. _____ 6. _____ 7. _____ 8. _____ _____ 92% = Total Cover <b>Woody Vine Stratum</b> (Plot size: _____) 1. _____ 2. _____ _____ = Total Cover % Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B) <b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____ <b>Hydrophytic Vegetation Indicators:</b> <input checked="" type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. <b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Remarks:  Vegetation passes dominance test.	

# SOIL

Sampling Point: ACDG-0724

## Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
1-2.5	10YR 5/3	100%					SaClLoam	many roots, black soil crust
2.5-8	10YR 5/3	80%	2.5N	5%	C	M	LoSand	
	10YR 7/3	5%						
8-12	10YR 5/2	99%	2.5N	1%	C	M	LoSand	
12-16	10YR 7/3	100%					LoSand	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

## Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) (**LRR C**)
- ☐ 1 cm Muck (A9) (**LRR D**)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)

- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☒ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

## Indicators for Problematic Hydric Soils<sup>3</sup>:

- ☐ 1 cm Muck (A9) (**LRR C**)
- ☐ 2 cm Muck (A10) (**LRR B**)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

## Restrictive Layer (if present):

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes ☒ No ☐

## Remarks:

Pasture has been tilled and planted as corn in the past (10+ years). Planted with pasture mix and actively irrigated.

# HYDROLOGY

## Wetland Hydrology Indicators:

### Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1) (**Nonriverine**)
- ☐ Sediment Deposits (B2) (**Nonriverine**)
- ☐ Drift Deposits (B3) (**Nonriverine**)
- ☒ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)

- ☐ Salt Crust (B11)
- ☒ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

### Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) (**Riverine**)
- ☐ Sediment Deposits (B2) (**Riverine**)
- ☐ Drift Deposits (B3) (**Riverine**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☒ FAC-Neutral Test (D5)

## Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches): \_\_\_\_\_

Water Table Present? Yes ☐ No ☒ Depth (inches): \_\_\_\_\_

Saturation Present? Yes ☐ No ☒ Depth (inches): \_\_\_\_\_  
(includes capillary fringe)

Wetland Hydrology Present? Yes ☒ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

Flood irrigated pasture.

# WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: WDC MPDG-07282016-1-IN City/County: Davis County Sampling Date: 7/28/2016  
 Applicant/Owner: UDOT State: Utah Sampling Point: MPDG-07282016-1  
 Investigator(s): MP/DG Section, Township, Range: 20 4N 2W  
 Landform (hillslope, terrace, etc.): terrace/depression Local relief (concave, convex, none): concave Slope (%): 1%  
 Subregion (LRR): D Lat: 41.0662775 Long: -112.0958799 Datum: D WGS 1983  
 Soil Map Unit Name: Eimarsh-Playas-Pintailake complex, 0 to 1 percent slopes NWI classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology ☒ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____	
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	
Remarks: Pasture field meets wetland criteria where indicated by hydrophytic vegetation	

## VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)  Total Number of Dominant Species Across All Strata: <u>2</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
_____ = Total Cover				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B)  Prevalence Index = B/A = _____
<b>Sapling/Shrub Stratum</b> (Plot size: _____)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	<b>Hydrophytic Vegetation Indicators:</b> <input checked="" type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
_____ = Total Cover				
<b>Herb Stratum</b> (Plot size: <u>5 ft. radius</u> )				
1. <u>Distichlis spicata</u>	<u>50%</u>	<u>Yes</u>	<u>FAC</u>	
2. <u>Eleocharis palustris</u>	<u>5%</u>		<u>OBL</u>	
3. <u>Cordylanthus maritimus</u>	<u>5%</u>		<u>OBL</u>	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
4. <u>Schedonorus pratensis</u>	<u>5%</u>		<u>FACU</u>	
5. <u>Hordeum jubatum</u>	<u>2%</u>		<u>FAC</u>	
6. <u>Puccinellia nuttalliana</u>	<u>30%</u>	<u>Yes</u>	<u>FACW</u>	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No _____
_____ = Total Cover				
<b>Woody Vine Stratum</b> (Plot size: _____)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
_____ = Total Cover				
% Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____				
Remarks:				

# SOIL

Sampling Point: MPDG-07

## Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-2	10YR 5/2	100%					SaLoam	
2-7	10YR 4/2	93%	Gley 1 2.5/N	5%	C	M	SaClLoam	
			5YR 5/6	2%	C	M		
7-12	10YR 4/2	87%	Gley 1 2.5/N	2%			SaClLoam	
	10YR 6/3	10%	5YR 5/6	1%				
12+	10YR 4/2	95%	Gley 1 2.5/N	5%	C	M	SaClLoam	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

### Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- |  |  |
|--|--|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)                |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)            |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)        |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)        |
| <input type="checkbox"/> Stratified Layers (A5) (LRR C)    | <input checked="" type="checkbox"/> Depleted Matrix (F3) |
| <input type="checkbox"/> 1 cm Muck (A9) (LRR D)            | <input type="checkbox"/> Redox Dark Surface (F6)         |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7)      |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)          |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)               |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |  |

### Indicators for Problematic Hydric Soils<sup>3</sup>:

- ☐ 1 cm Muck (A9) (LRR C)
- ☐ 2 cm Muck (A10) (LRR B)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

### Restrictive Layer (if present):

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes ☒ No ☐

### Remarks:

Based on surrounding landscape and persisting features, field appears naturally alkali flat knolls that have been tilled and irrigated. This pit appears "freshened up" by irrigation with visible redox features, while point near unvegetated area did not.

# HYDROLOGY

## Wetland Hydrology Indicators:

### Primary Indicators (minimum of one required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input checked="" type="checkbox"/> Biotic Crust (B12)                 |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Invertebrates (B13)                   |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

### Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) (Riverine)
- ☐ Sediment Deposits (B2) (Riverine)
- ☐ Drift Deposits (B3) (Riverine)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☒ FAC-Neutral Test (D5)

### Field Observations:

- |  |   |                       |
|--|---|-----------------------|
| Surface Water Present?                             | Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> | Depth (inches): _____ |
| Water Table Present?                               | Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> | Depth (inches): _____ |
| Saturation Present?<br>(includes capillary fringe) | Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> | Depth (inches): _____ |

Wetland Hydrology Present? Yes ☒ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

### Remarks:

Landowner said field is flood irrigated every Thursday. Regardless, landscape and vegetation suggest natural seasonal hydrology. Dry time of year for seasonal wetland. Soils moist but not saturated at 12".

# WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: WDC MPDG-07282016-1-OUT City/County: Davis County Sampling Date: 7/28/2016  
 Applicant/Owner: UDOT State: Utah Sampling Point: MPDG-07282016-1-OUT  
 Investigator(s): MP/DG Section, Township, Range: 20 4N 2W  
 Landform (hillslope, terrace, etc.): valley slope Local relief (concave, convex, none): convex Slope (%): 1%  
 Subregion (LRR): D Lat: 41.06618982 Long: -112.0959406 Datum: D WGS 1983  
 Soil Map Unit Name: Warm Springs fine sandy loam, saline, sodic, 0 to 1 percent slopes, cha NWI classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology ☒ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/>	
Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	
Remarks:	

## VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)  Total Number of Dominant Species Across All Strata: <u>2</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50%</u> (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
_____ = Total Cover				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species <u>1</u> x 1 = <u>1</u> FACW species <u>3</u> x 2 = <u>6</u> FAC species <u>50</u> x 3 = <u>150</u> FACU species <u>60</u> x 4 = <u>240</u> UPL species _____ x 5 = _____ Column Totals: <u>114</u> (A) <u>397</u> (B)  Prevalence Index = B/A = <u>3.48</u>
_____ = Total Cover				
_____ = Total Cover				
_____ = Total Cover				
_____ = Total Cover				
_____ = Total Cover				<b>Hydrophytic Vegetation Indicators:</b> ___ Dominance Test is >50% ___ Prevalence Index is ≤3.0 <sup>1</sup> ___ Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
_____ = Total Cover				
_____ = Total Cover				
_____ = Total Cover				
_____ = Total Cover				
_____ = Total Cover				<b>Hydrophytic Vegetation Present?</b> Yes _____ No <input checked="" type="checkbox"/>
_____ = Total Cover				
_____ = Total Cover				
_____ = Total Cover				
_____ = Total Cover				
% Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____				<b>Hydrophytic Vegetation Present?</b> Yes _____ No <input checked="" type="checkbox"/>
_____ = Total Cover				
_____ = Total Cover				
_____ = Total Cover				
_____ = Total Cover				
Remarks:				



## SOIL

Sampling Point: MPDG-07 

[illegible]

## HYDROLOGY

Wetland Hydrology Indicators:		
Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (2 or more required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) ( <b>Riverine</b> )
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) ( <b>Riverine</b> )
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) ( <b>Riverine</b> )
<input type="checkbox"/> Water Marks (B1) ( <b>Nonriverine</b> )	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) ( <b>Nonriverine</b> )	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3) ( <b>Nonriverine</b> )	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input type="checkbox"/> No <input type="checkbox"/> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		
No indicators observed.		

# WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: WDC MPDG-07292016-1-IN City/County: Davis County Sampling Date: 7/29/2016  
 Applicant/Owner: UDOT State: Utah Sampling Point: MPDG-07292016-1  
 Investigator(s): MP/DG Section, Township, Range: 21 4N 2W  
 Landform (hillslope, terrace, etc.): terrace/depression Local relief (concave, convex, none): concave Slope (%): 1%  
 Subregion (LRR): D Lat: 41.06246697 Long: -112.0838132 Datum: D WGS 1983  
 Soil Map Unit Name: Warm Springs fine sandy loam, 1 to 3 percent slopes NWI classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____	
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	
Remarks:	

## VEGETATION – Use scientific names of plants.

<b>Tree Stratum</b> (Plot size: _____) 1. _____ 2. _____ 3. _____ 4. _____ _____ = Total Cover <b>Sapling/Shrub Stratum</b> (Plot size: _____) 1. _____ 2. _____ 3. _____ 4. _____ 5. _____ _____ = Total Cover <b>Herb Stratum</b> (Plot size: <u>5 ft. radius</u> ) 1. <u>Distichlis spicata</u> <u>75%</u> <u>Yes</u> <u>FAC</u> 2. <u>Schoenoplectus pungens</u> <u>40%</u> <u>Yes</u> <u>OBL</u> 3. <u>Schoenoplectus acutus</u> <u>10%</u> <u></u> <u>OBL</u> 4. <u>Puccinellia nuttalliana</u> <u>5%</u> <u></u> <u>FACW</u> 5. _____ 6. _____ 7. _____ 8. _____ _____ = Total Cover <b>Woody Vine Stratum</b> (Plot size: _____) 1. _____ 2. _____ _____ = Total Cover % Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B) <b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____ <b>Hydrophytic Vegetation Indicators:</b> <input checked="" type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. <b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No _____
Remarks:	

# SOIL

Sampling Point: MPDG-07

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-2	10YR 5/2	100%					SiLoam	
2-8.5	7.5YR 5/1	50%	7.5YR 6/2	50%	D	M	SiLoam	
8.5-10	7.5YR 4/3	100%					SiLoam	
10-18	5YR 4/3	60%	5YR 5/1	40%	D	M	Clay	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) (**LRR C**)
- ☐ 1 cm Muck (A9) (**LRR D**)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)

- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☒ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- ☐ 1 cm Muck (A9) (**LRR C**)
- ☐ 2 cm Muck (A10) (**LRR B**)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes ☒ No ☐

Remarks:

# HYDROLOGY

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1) (**Nonriverine**)
- ☐ Sediment Deposits (B2) (**Nonriverine**)
- ☐ Drift Deposits (B3) (**Nonriverine**)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☒ Water-Stained Leaves (B9)

- ☒ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) (**Riverine**)
- ☐ Sediment Deposits (B2) (**Riverine**)
- ☐ Drift Deposits (B3) (**Riverine**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☒ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present? Yes ☐ No ☒ Depth (inches): \_\_\_\_\_

Water Table Present? Yes ☐ No ☒ Depth (inches): \_\_\_\_\_

Saturation Present? Yes ☐ No ☒ Depth (inches): \_\_\_\_\_  
(includes capillary fringe)

**Wetland Hydrology Present?** Yes ☒ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Soil moist (not saturated) below 8"

# WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: WDC MPDG-07292016-1-OUT City/County: Davis County Sampling Date: 7/29/2016  
 Applicant/Owner: UDOT State: Utah Sampling Point: MPDG-07292016-1  
 Investigator(s): MP/DG Section, Township, Range: 21 4N 2W  
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): convex Slope (%): 2%  
 Subregion (LRR): D Lat: 41.06246697 Long: -112.0838132 Datum: D WGS 1983  
 Soil Map Unit Name: Warm Springs fine sandy loam, 1 to 3 percent slopes NWI classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/>	
Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	
Remarks: Point just above wetland boundary on greasewood knoll that transitions to wheatgrass.	

## VEGETATION – Use scientific names of plants.

<b>Tree Stratum</b> (Plot size: _____) 1. _____ 2. _____ 3. _____ 4. _____ _____ = Total Cover <b>Sapling/Shrub Stratum</b> (Plot size: _____) 1. _____ 2. _____ 3. _____ 4. _____ 5. _____ _____ = Total Cover <b>Herb Stratum</b> (Plot size: <u>5 ft. radius</u> ) 1. <u>Distichlis spicata</u> 40% Yes FAC 2. <u>Suaeda occidentalis</u> 35% Yes FACW 3. <u>Thinopyrum intermedium</u> 5% NL 4. <u>Agrostis stolonifera</u> 5% FACW 5. <u>Panicum virgatum</u> 1% FACW 6. _____ 7. _____ 8. _____ _____ = Total Cover <b>Woody Vine Stratum</b> (Plot size: _____) 1. _____ 2. _____ _____ = Total Cover % Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B) <b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____ <b>Hydrophytic Vegetation Indicators:</b> ___ Dominance Test is >50% ___ Prevalence Index is ≤3.0 <sup>1</sup> ___ Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. <b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No _____
---	---

Remarks:  
Saline greasewood knolls that transition into wheatgrass.

## SOIL

Sampling Point: MPDG-07

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-2	10YR 4/2	100%					SiLoam	
2-14	7.5YR 5/3	100%					SiLoam	~3% black rock

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) (**LRR C**)
- ☐ 1 cm Muck (A9) (**LRR D**)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)

- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- ☐ 1 cm Muck (A9) (**LRR C**)
- ☐ 2 cm Muck (A10) (**LRR B**)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No ☒

Remarks:

## HYDROLOGY

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1) (**Nonriverine**)
- ☐ Sediment Deposits (B2) (**Nonriverine**)
- ☐ Drift Deposits (B3) (**Nonriverine**)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)

- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) (**Riverine**)
- ☐ Sediment Deposits (B2) (**Riverine**)
- ☐ Drift Deposits (B3) (**Riverine**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☒ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present? Yes \_\_\_\_\_ No ☒ Depth (inches): \_\_\_\_\_

Water Table Present? Yes \_\_\_\_\_ No ☒ Depth (inches): \_\_\_\_\_

Saturation Present? Yes \_\_\_\_\_ No ☒ Depth (inches): \_\_\_\_\_  
(includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Dry to bottom of pit (14").

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 7/30/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: \_\_\_\_\_ Sampling Point: 12-N-201207301242  
 Investigators: Mike Perkins Nate Nichols Section, Township, Range S 21 T 4 R 2  
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): None Slope(%) 0  
 Subregion (LRR): LRR D Lat: 41.0732114494 Long: -112.06606353 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Ford loam, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes \_\_\_\_\_ No X  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology X, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> <b>Wetland ID:</b> _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	

Remarks:  
 Data point suggests an upland not a wetland - no hydric soils or wetland hydrology observed.

## VEGETATION - Use scientific names of plants.

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
Carex praegracilis	25	Y	FACW
Juncus arcticus	20	Y	FACW
Festuca pratensis	10	N	FACU
Hordeum jubatum	5	N	FAC
Atriplex micrantha	2	N	UPL
	62	=Total Cover	

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 2 (A)  
 Total Number of Dominant Species Across all Strata: 2 (B)  
 Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>45</u>	x 2 = <u>90</u>
FAC species <u>5</u>	x 3 = <u>15</u>
FACU species <u>10</u>	x 4 = <u>40</u>
UPL species <u>2</u>	x 5 = <u>10</u>
Column Totals: <u>62</u> (A)	<u>155</u> (B)
Prevalence Index = B/A = <u>2.50</u>	

### Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
 Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No \_\_\_\_\_

% Bare Ground in Herb Stratum 2 % Cover of Biotic Crust

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation is hydrophytic.



**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix			Redox Features				Texture	Remarks
	Color (moist)		%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 4	7.5YR	3.0/ 3	100					LOAM	Organic root mat
4 to 7	10YR	4.0/ 2	100					SILTY CLAY LOAM	
7 to 13	10YR	3.0/ 2	100					LOAM	
13 to 16	10YR	6.0/ 3	60	10YR 5/3	40	C	M	CLAY LOAM	
16 to 18	10YR	7.0/ 2	100					CLAY LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)           |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)       |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)   |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)   |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input type="checkbox"/> Depleted Matrix (F3)       |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)     |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)          |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |   |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- |   |
|---|
| <input type="checkbox"/> 1 cm Muck (A9) (LRR C)     |
| <input type="checkbox"/> 2 cm Muck (A10) (LRR B)    |
| <input type="checkbox"/> Reduced Vertic (F18)       |
| <input type="checkbox"/> Red Parent Material (TF2)  |
| <input type="checkbox"/> Other (Explain in Remarks) |

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No X

## Remarks:

No hydric soil indicators were observed.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- |  |
|--|
| <input type="checkbox"/> Water Marks (B1) (Riverine)             |
| <input type="checkbox"/> Sediment Deposits (B2) (Riverine)       |
| <input type="checkbox"/> Drift Deposits (B3) (Riverine)          |
| <input type="checkbox"/> Drainage Patterns (B10)                 |
| <input type="checkbox"/> Dry-Season Water Table (C2)             |
| <input type="checkbox"/> Crayfish Burrows (C8)                   |
| <input type="checkbox"/> Saturation Visible on Aerial Imag. (C9) |
| <input type="checkbox"/> Shallow Aquitard (D3)                   |
| <input checked="" type="checkbox"/> FAC-Neutral Test (D5)        |

**Field Observations:**

Surface Water Present?	Yes _____ No <u>X</u>	Depth (inches):	_____
Water Table Present?	Yes _____ No <u>X</u>	Depth (inches):	_____
Saturation Present?	Yes _____ No <u>X</u>	Depth (inches):	_____

(includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

Dry area lacks sufficient evidence for wetland hydrology.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 7/31/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 4 Sampling Point: 12-N-201207311324  
 Investigators: Mike Perkins Nate Nichols Section, Township, Range S 21 T 4 R 2  
 Landform (hillslope, terrace, etc.): Basin Local Relief (concave, convex, none): Concave Slope(%) 5  
 Subregion (LRR): LRR D Lat: 41.068686247 Long: -112.067079934 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Ford loam, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes \_\_\_\_\_ No X  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology X, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> <b>Wetland ID:</b> _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	

Remarks:  
 Sampling point has hydrophytic vegetation, but does not contain hydric soils or evidence of wetland hydrology.

## VEGETATION— Use scientific names of plants.

	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
<u>Tree Stratum</u>			
<u>Shrub Stratum</u> (Plot size: <u>30 Ft</u> )			
<u>Sarcobatus vermiculatus</u>	<u>10</u>	<u>Y</u>	<u>FAC</u>
	<u>10</u>	=Total Cover	
<u>Herb Stratum</u> (Plot size: <u>30 Ft</u> )			
<u>Distichlis spicata</u>	<u>40</u>	<u>Y</u>	<u>FAC</u>
<u>Hordeum pusillum</u>	<u>40</u>	<u>Y</u>	<u>FACU</u>
<u>Pascopyrum smithii</u>	<u>10</u>	<u>N</u>	<u>FAC</u>
	<u>90</u>	=Total Cover	
<u>Vine Stratum</u>			

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 2 (A)  
 Total Number of Dominant Species Across all Strata: 3 (B)  
 Percent of Dominant Species That are OBL, FACW, or FAC: 66.7% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>0</u>	x 2 = <u>0</u>
FAC species <u>60</u>	x 3 = <u>180</u>
FACU species <u>40</u>	x 4 = <u>160</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>100</u> (A)	<u>340</u> (B)

Prevalence Index = B/A = 3.40

### Hydrophytic Vegetation Indicators:

       Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
       Prevalence Index ≤ 3.0  
       Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
       Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No \_\_\_\_\_

% Bare Ground in Herb Stratum 10 % Cover of Biotic Crust \_\_\_\_\_

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation qualifies as hydrophytic by Dominance Test.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 4	10YR	4.0/ 3					SANDY LOAM	
4 to 7	10YR	7.0/ 3	10YR 7/3	5	D	M	SANDY LOAM	Calcic layer
7 to 18	10YR	3.0/ 3			D	M	SILTY CLAY	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)           |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)       |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)   |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)   |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input type="checkbox"/> Depleted Matrix (F3)       |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)     |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)          |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |   |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- |   |
|---|
| <input type="checkbox"/> 1 cm Muck (A9) (LRR C)     |
| <input type="checkbox"/> 2 cm Muck (A10) (LRR B)    |
| <input type="checkbox"/> Reduced Vertic (F18)       |
| <input type="checkbox"/> Red Parent Material (TF2)  |
| <input type="checkbox"/> Other (Explain in Remarks) |

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No X

## Remarks:

Soil profile does not meet any hydric indicator.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- |   |
|---|
| <input type="checkbox"/> Water Marks (B1) (Riverine)            |
| <input type="checkbox"/> Sediment Deposits (B2) (Riverine)      |
| <input type="checkbox"/> Drift Deposits (B3) (Riverine)         |
| <input type="checkbox"/> Drainage Patterns (B10)                |
| <input type="checkbox"/> Dry-Season Water Table (C2)            |
| <input type="checkbox"/> Crayfish Burrows (C8)                  |
| <input type="checkbox"/> Saturation Visible on Aerial Imag.(C9) |
| <input type="checkbox"/> Shallow Aquitard (D3)                  |
| <input type="checkbox"/> FAC-Neutral Test (D5)                  |

**Field Observations:**

Surface Water Present?	Yes _____ No <u>X</u>	Depth (inches):	____
Water Table Present?	Yes _____ No <u>X</u>	Depth (inches):	____
Saturation Present?	Yes _____ No <u>X</u>	Depth (inches):	____

(includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

Area lacks evidence for wetland hydrology, although during dry time of year on 7/31/12. Revisited 4/25/13 and no wetland hydrology encountered. Soils become moist (but not saturated) at 13 inches.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 7/31/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: \_\_\_\_\_ Sampling Point: 12-N-201207311358  
 Investigators: Mike Perkins Nate Nichols Section, Township, Range S 21 T 4 R 2  
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): Concave Slope(%) 1  
 Subregion (LRR): LRR D Lat: 41.0676979529 Long: -112.067924438 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Ford loam, 0 to 1 percent slopes NWI Classification: PEMF

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation X, Soil X, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes \_\_\_\_\_ No X  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ <b>Wetland ID:</b> <u>12-IW-50</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks:  
 Disturbed feature that is a potentially isolated wetland. Possibly created from excavation activity some time ago.

## VEGETATION— Use scientific names of plants.

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
Rumex crispus	20	Y	FAC
Distichlis spicata	5	N	FAC
Eleocharis palustris	5	N	OBL
Hordeum jubatum	5	N	FAC
	35	=Total Cover	

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across all Strata: 1 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>5</u>	x 1 = <u>5</u>
FACW species <u>0</u>	x 2 = <u>0</u>
FAC species <u>30</u>	x 3 = <u>90</u>
FACU species <u>0</u>	x 4 = <u>0</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>35</u> (A)	<u>95</u> (B)

Prevalence Index = B/A = 2.71

### Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
 \_\_\_\_\_ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 \_\_\_\_\_ Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No \_\_\_\_\_

% Bare Ground in Herb Stratum 45 % Cover of Biotic Crust 5

Remarks: (Include photo numbers here or on a separate sheet.)

Facultative-dominant vegetation qualifies as hydrophytic.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix			Redox Features				Texture	Remarks
	Color (moist)		%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 8	10YR	4.0 / 4	94	5YR 4/4	6	C	M	SAND	
8 to 9	2.5YR	5.0 / 1	100					SILTY CLAY	
9 to 12	2.5YR	4.0 / 2	60	10YR 4/6	40	C	M	SANDY CLAY	
12 to 18	2.5Y	3.0 / 2	100					SILTY CLAY	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- ☐ Histosol (A1)  
☐ Histic Epipedon (A2)  
☐ Black Histic (A3)  
☐ Hydrogen Sulfide (A4)  
☐ Stratified Layers (A5) LRR C  
☐ 1 cm Muck (A9) LRR F D  
☐ Depleted Below Dark Surface (A11)  
☐ Thick Dark Surface (A12)  
☐ Sandy Mucky Mineral (S1)  
☐ Sandy Gleyed Matrix (S4)  
☐ Sandy Redox (S5)  
☐ Stripped Matrix (S6)  
☐ Loamy Mucky Mineral (F1)  
☐ Loamy Gleyed Matrix (F2)  
☒ Depleted Matrix (F3)  
☐ Redox Dark Surface (F6)  
☐ Depleted Dark Surface (F7)  
☐ Redox Depressions (F8)  
☐ Vernal Pools (F9)

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)  
☐ 2 cm Muck (A10) (LRR B)  
☐ Reduced Vertic (F18)  
☐ Red Parent Material (TF2)  
☒ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes X No \_\_\_\_\_**Remarks:**

Disturbed soil profile that may meet criteria for hydric indicator, F3 Depleted Matrix, though is borderline. 0-8 in layer also has faint redox concentrations.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)  
☐ High Water Table (A2)  
☒ Saturation (A3)  
☐ Water Marks (B1) (Nonriverine)  
☐ Sediment Deposits (B2) (Nonriverine)  
☐ Drift Deposits (B3) (Nonriverine)  
☐ Surface Soil Cracks (B6)  
☐ Inundation Visible on Aerial Imagery (B7)  
☐ Water-Stained Leaves (B9)  
☒ Salt Crust (B11)  
☒ Biotic Crust (B12)  
☐ Aquatic Fauna (B13)  
☐ Hydrogen Sulfide Odor (C1)  
☐ Oxidized Rhizospheres along Living Roots (C3)  
☐ Presence of Reduced Iron (C4)  
☐ Recent Iron Reduction in Tilled Soils (C6)  
☐ Thin Muck Surface (C7)  
☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)  
☐ Sediment Deposits (B2) (Riverine)  
☐ Drift Deposits (B3) (Riverine)  
☐ Drainage Patterns (B10)  
☐ Dry-Season Water Table (C2)  
☐ Crayfish Burrows (C8)  
☐ Saturation Visible on Aerial Imag.(C9)  
☐ Shallow Aquitard (D3)  
☐ FAC-Neutral Test (D5)

**Field Observations:**Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Water Table Present? Yes X No \_\_\_\_\_ Depth (inches): 18Saturation Present? Yes X No \_\_\_\_\_ Depth (inches): 10

(includes capillary fringe)

**Wetland Hydrology Present?** Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

**Remarks:**

Meets A3 indicator, but also displays salt crust and biotic crust primary indicators.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 8/1/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 4 Sampling Point: 12-N-201208011116  
 Investigators: Donvan Nate Nichols Section, Township, Range S 22 T 4 R 2  
 Landform (hillslope, terrace, etc.): Basin Local Relief (concave, convex, none): Concave Slope(%) 5  
 Subregion (LRR): LRR D Lat: 41.0674980721 Long: -112.062618522 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Ford loam, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes \_\_\_\_\_ No X  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology X, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <u>X</u> Hydric Soil Present? Yes _____ No <u>X</u> Wetland Hydrology Present? Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>X</u> Wetland ID: _____
---	--

Remarks:  
 Upland point. Strongly upland plant community, no soil pit necessary.

### VEGETATION— Use scientific names of plants.

#### Tree Stratum

#### Shrub Stratum

#### Herb Stratum (Plot size: 30 Ft )

	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
<u>Sporobolus cryptandrus</u>	<u>60</u>	<u>Y</u>	<u>FACU</u>
<u>Bromus tectorum</u>	<u>30</u>	<u>Y</u>	<u>UPL</u>
<u>Dipsacus fullonum</u>	<u>10</u>	<u>N</u>	<u>FAC</u>
	<u>100</u>	<u>=Total Cover</u>	

#### Vine Stratum

#### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 2 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 0.0% (A/B)

#### Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	<u>0</u>	x 1 =	<u>0</u>
FACW species	<u>0</u>	x 2 =	<u>0</u>
FAC species	<u>10</u>	x 3 =	<u>30</u>
FACU species	<u>60</u>	x 4 =	<u>240</u>
UPL species	<u>30</u>	x 5 =	<u>150</u>
Column Totals:	<u>100</u> (A)		<u>420</u> (B)

Prevalence Index = B/A = 4.20

#### Hydrophytic Vegetation Indicators:

\_\_\_\_\_ Rapid Test for Hydrophytic Vegetation  
 \_\_\_\_\_ Dominance Test > 50%  
 \_\_\_\_\_ Prevalence Index ≤ 3.0  
 \_\_\_\_\_ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 \_\_\_\_\_ Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes \_\_\_\_\_ No X

% Bare Ground in Herb Stratum 0 % Cover of Biotic Crust \_\_\_\_\_

Remarks: (Include photo numbers here or on a separate sheet.)

Upland grass community.



**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)           |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)       |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)   |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)   |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input type="checkbox"/> Depleted Matrix (F3)       |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)     |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)          |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |   |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)
- ☐ 2 cm Muck (A10) (LRR B)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No X**Remarks:**

No soil data collected because of upland plant community and no hydrology.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)
- ☐ Sediment Deposits (B2) (Riverine)
- ☐ Drift Deposits (B3) (Riverine)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

**Field Observations:**Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Water Table Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Saturation Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_

(includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

**Remarks:**

No wetland hydrology.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 8/1/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 4 Sampling Point: 12-N-20120801129  
 Investigators: Donovan Gross Nate Nichols Section, Township, Range S 22 T 4 R 2  
 Landform (hillslope, terrace, etc.): Basin Local Relief (concave, convex, none): Concave Slope(%) 5  
 Subregion (LRR): LRR D Lat: 41.0679443662 Long: -112.063486704 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Warm Springs fine sandy loam, shallow water table, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology X, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> <b>Wetland ID:</b> _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	

Remarks:  
 Upland vegetation. Sample point suggests area is not a wetland. No soil data collected.

## VEGETATION— Use scientific names of plants.

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
Hordeum pusillum	60	Y	FACU
Bromus inermis	20	Y	FACU
Distichlis spicata	10	N	FAC
Lepidium latifolium	10	N	FAC
	100	=Total Cover	

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 0 (A)  
 Total Number of Dominant Species Across all Strata: 2 (B)  
 Percent of Dominant Species That are OBL, FACW, or FAC: 0.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>0</u>	x 2 = <u>0</u>
FAC species <u>20</u>	x 3 = <u>60</u>
FACU species <u>80</u>	x 4 = <u>320</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>100</u> (A)	<u>380</u> (B)
Prevalence Index = B/A= <u>3.80</u>	

### Hydrophytic Vegetation Indicators:

☐ Rapid Test for Hydrophytic Vegetation  
☐ Dominance Test > 50%  
☐ Prevalence Index ≤ 3.0  
☐ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
☐ Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

% Bare Ground in Herb Stratum 0 % Cover of Biotic Crust \_\_\_\_\_

**Hydrophytic Vegetation Present?** Yes \_\_\_\_\_ No X

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation is not hydrophytic.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)           |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)       |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)   |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)   |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input type="checkbox"/> Depleted Matrix (F3)       |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)     |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)          |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |   |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)
- ☐ 2 cm Muck (A10) (LRR B)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No X**Remarks:**

No soil data collected, vegetation clearly indicate an upland.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)
- ☐ Sediment Deposits (B2) (Riverine)
- ☐ Drift Deposits (B3) (Riverine)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

**Field Observations:**Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Water Table Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Saturation Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_

(includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

**Remarks:**

No indicators.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 8/3/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: \_\_\_\_\_ Sampling Point: 12-N-201208031332  
 Investigators: Mike Perkins Section, Township, Range S 22 T 4 R 2  
 Landform (hillslope, terrace, etc.): Basin Local Relief (concave, convex, none): Concave Slope(%) 5  
 Subregion (LRR): LRR D Lat: 41.0694578505 Long: -112.059589231 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Ford loam, shallow water table, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology X, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> Wetland ID: _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	

Remarks:  
 Sampling point not a wetland.

## VEGETATION— Use scientific names of plants.

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
<u>Distichlis spicata</u>	<u>50</u>	<u>Y</u>	<u>FAC</u>
<u>Poa secunda</u>	<u>15</u>	<u>Y</u>	<u>FACU</u>
<u>Hordeum jubatum</u>	<u>10</u>	<u>N</u>	<u>FAC</u>
<u>Juncus arcticus</u>	<u>10</u>	<u>N</u>	<u>FACW</u>
<u>Lepidium latifolium</u>	<u>10</u>	<u>N</u>	<u>FAC</u>
<u>Schoenoplectus pungens</u>	<u>5</u>	<u>N</u>	<u>OBL</u>
	<u>100</u>	<u>=Total Cover</u>	

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across all Strata: 2 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 50.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>5</u>	x 1 = <u>5</u>
FACW species <u>10</u>	x 2 = <u>20</u>
FAC species <u>70</u>	x 3 = <u>210</u>
FACU species <u>15</u>	x 4 = <u>60</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>100</u> (A)	<u>295</u> (B)

Prevalence Index = B/A = 2.95

### Hydrophytic Vegetation Indicators:

\_\_\_\_ Rapid Test for Hydrophytic Vegetation  
 \_\_\_\_ Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
 \_\_\_\_ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 \_\_\_\_ Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No \_\_\_\_\_

% Bare Ground in Herb Stratum 0 % Cover of Biotic Crust \_\_\_\_\_

Remarks: (Include photo numbers here or on a separate sheet.)  
 Vegetation qualifies as hydrophytic by the Prevalence Index.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 3	10YR	4.0 / 4					LOAM	
3 to 14	10YR	3.0 / 2	10YR 5/2	5	D	M	SILTY CLAY LOAM	
14 to 18	10YR	5.0 / 3	10YR 3/1	40	D	M	CLAY LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)           |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)       |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)   |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)   |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input type="checkbox"/> Depleted Matrix (F3)       |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)     |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)          |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |   |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- |   |
|---|
| <input type="checkbox"/> 1 cm Muck (A9) (LRR C)     |
| <input type="checkbox"/> 2 cm Muck (A10) (LRR B)    |
| <input type="checkbox"/> Reduced Vertic (F18)       |
| <input type="checkbox"/> Red Parent Material (TF2)  |
| <input type="checkbox"/> Other (Explain in Remarks) |

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No X

## Remarks:

No hydric indicators observed in soil profile.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- |   |
|---|
| <input type="checkbox"/> Water Marks (B1) (Riverine)            |
| <input type="checkbox"/> Sediment Deposits (B2) (Riverine)      |
| <input type="checkbox"/> Drift Deposits (B3) (Riverine)         |
| <input type="checkbox"/> Drainage Patterns (B10)                |
| <input type="checkbox"/> Dry-Season Water Table (C2)            |
| <input type="checkbox"/> Crayfish Burrows (C8)                  |
| <input type="checkbox"/> Saturation Visible on Aerial Imag.(C9) |
| <input type="checkbox"/> Shallow Aquitard (D3)                  |
| <input type="checkbox"/> FAC-Neutral Test (D5)                  |

**Field Observations:**

Surface Water Present?	Yes _____ No <u>X</u>	Depth (inches): _____
Water Table Present?	Yes _____ No <u>X</u>	Depth (inches): _____
Saturation Present?	Yes _____ No <u>X</u>	Depth (inches): _____

(includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

No hydrology indicators, although it is the dry time of year.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 8/3/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: \_\_\_\_\_ Sampling Point: 12-N-201208031401  
 Investigators: Mike Perkins Section, Township, Range S 22 T 4 R 2  
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): Convex Slope(%) 1  
 Subregion (LRR): LRR D Lat: 41.069041869 Long: -112.058555956 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Ford loam, shallow water table, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes \_\_\_\_\_ No X  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology X, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> <b>Wetland ID:</b> _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	

Remarks:  
 Sampling point has hydrophytic vegetation, but does not contain hydric soils or evidence of wetland hydrology.

## VEGETATION— Use scientific names of plants.

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
Carex praegracilis	25	Y	FACW
Distichlis spicata	15	Y	FAC
Hordeum jubatum	15	Y	FAC
Puccinellia nuttalliana	15	Y	FACW
Juncus arcticus	5	N	FACW
Poa secunda	5	N	FACU
Lepidium latifolium	2	N	FAC
	82	=Total Cover	

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across all Strata: 4 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>45</u>	x 2 = <u>90</u>
FAC species <u>32</u>	x 3 = <u>96</u>
FACU species <u>5</u>	x 4 = <u>20</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>82</u> (A)	<u>206</u> (B)

Prevalence Index = B/A = 2.51

### Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
 Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No \_\_\_\_\_

% Bare Ground in Herb Stratum 15 % Cover of Biotic Crust

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation is hydrophytic.



**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 1	10YR 3.0/ 3	100		40	D	M	LOAM	organic
1 to 5	10YR 3.0/ 4	100					SILTY CLAY LOAM	
5 to 18	10YR 3.0/ 3	100					SILTY CLAY LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- ☐ Histosol (A1)  
☐ Histic Epipedon (A2)  
☐ Black Histic (A3)  
☐ Hydrogen Sulfide (A4)  
☐ Stratified Layers (A5) LRR C  
☐ 1 cm Muck (A9) LRR F D  
☐ Depleted Below Dark Surface (A11)  
☐ Thick Dark Surface (A12)  
☐ Sandy Mucky Mineral (S1)  
☐ Sandy Gleyed Matrix (S4)

- ☐ Sandy Redox (S5)  
☐ Stripped Matrix (S6)  
☐ Loamy Mucky Mineral (F1)  
☐ Loamy Gleyed Matrix (F2)  
☐ Depleted Matrix (F3)  
☐ Redox Dark Surface (F6)  
☐ Depleted Dark Surface (F7)  
☐ Redox Depressions (F8)  
☐ Vernal Pools (F9)

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)  
☐ 2 cm Muck (A10) (LRR B)  
☐ Reduced Vertic (F18)  
☐ Red Parent Material (TF2)  
☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No X

## Remarks:

No hydric indicators observed in soil profile.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)  
☐ High Water Table (A2)  
☐ Saturation (A3)  
☐ Water Marks (B1) (Nonriverine)  
☐ Sediment Deposits (B2) (Nonriverine)  
☐ Drift Deposits (B3) (Nonriverine)  
☐ Surface Soil Cracks (B6)  
☐ Inundation Visible on Aerial Imagery (B7)  
☐ Water-Stained Leaves (B9)  
☐ Salt Crust (B11)  
☐ Biotic Crust (B12)  
☐ Aquatic Fauna (B13)  
☐ Hydrogen Sulfide Odor (C1)  
☐ Oxidized Rhizospheres along Living Roots (C3)  
☐ Presence of Reduced Iron (C4)  
☐ Recent Iron Reduction in Tilled Soils (C6)  
☐ Thin Muck Surface (C7)  
☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)  
☐ Sediment Deposits (B2) (Riverine)  
☐ Drift Deposits (B3) (Riverine)  
☐ Drainage Patterns (B10)  
☐ Dry-Season Water Table (C2)  
☐ Crayfish Burrows (C8)  
☐ Saturation Visible on Aerial Imag.(C9)  
☐ Shallow Aquitard (D3)  
☒ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_  
Water Table Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_  
Saturation Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_  
(includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

Dry area lacks sufficient evidence for wetland hydrology, but it is a dry time of year.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 8/6/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 4 Sampling Point: 12-N-201208061400  
 Investigators: Mike Perkins Nate Nichols Section, Township, Range S 22 T 4 R 2  
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): None Slope(%) 0  
 Subregion (LRR): LRR D Lat: 41.0681636794 Long: -112.059241422 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Ford loam, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes \_\_\_\_\_ No X  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology X, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> Wetland ID: _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks:  
 Sampling point not a wetland.

## VEGETATION— Use scientific names of plants.

**Absolute % Cover** **Dominant Species** **Indicator Status**

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

Puccinellia nuttalliana	30	Y	FACW
Distichlis spicata	25	Y	FAC
Festuca pratensis	5	N	FACU
Juncus arcticus	5	N	FACW
	65	=Total Cover	

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across all Strata: 2 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>35</u>	x 2 = <u>70</u>
FAC species <u>25</u>	x 3 = <u>75</u>
FACU species <u>5</u>	x 4 = <u>20</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>65</u> (A)	<u>165</u> (B)

Prevalence Index = B/A = 2.54

### Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
 Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No \_\_\_\_\_

% Bare Ground in Herb Stratum 35 % Cover of Biotic Crust

Remarks: (Include photo numbers here or on a separate sheet.)  
 Vegetation is hydrophytic.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 1	10YR 3.0/ 4	100					LOAM	
1 to 7	10YR 3.0/ 3	100					SILTY CLAY LOAM	
7 to 10	7.5YR 4.0/ 3	100					SILTY CLAY LOAM	
10 to 18	7.5YR 4.0/ 4	100					SILTY CLAY LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)           |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)       |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)   |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)   |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input type="checkbox"/> Depleted Matrix (F3)       |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)     |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)          |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |   |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)  
☐ 2 cm Muck (A10) (LRR B)  
☐ Reduced Vertic (F18)  
☐ Red Parent Material (TF2)  
☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No X

## Remarks:

No hydric indicators observed in soil profile.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                           | <input checked="" type="checkbox"/> Aquatic Fauna (B13)                |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input checked="" type="checkbox"/> Surface Soil Cracks (B6)       | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)  
☐ Sediment Deposits (B2) (Riverine)  
☐ Drift Deposits (B3) (Riverine)  
☐ Drainage Patterns (B10)  
☐ Dry-Season Water Table (C2)  
☐ Crayfish Burrows (C8)  
☐ Saturation Visible on Aerial Imag.(C9)  
☐ Shallow Aquitard (D3)  
☒ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present?	Yes _____ No <u>X</u>	Depth (inches):	____
Water Table Present?	Yes _____ No <u>X</u>	Depth (inches):	____
Saturation Present?	Yes _____ No <u>X</u>	Depth (inches):	____

(includes capillary fringe)

**Wetland Hydrology Present?** Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

Sampling point meets criteria for wetland hydrology.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 8/7/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 4 Sampling Point: 12-N-201208071455  
 Investigators: Donovan Gross Nate Nichols Section, Township, Range S 22 T 4 R 2  
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): Concave Slope(%) 1  
 Subregion (LRR): LRR D Lat: 41.0685470407 Long: -112.060297512 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Ford loam, shallow water table, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes \_\_\_\_\_ No X  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology X, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> <b>Wetland ID:</b> _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks:  
 sample point not a wetland. In subtle channel feature slightly higher than adjacent wetland.

## VEGETATION— Use scientific names of plants.

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
Carex praegracilis	35	Y	FACW
Lepidium latifolium	25	Y	FAC
Hordeum jubatum	5	N	FAC
	65	=Total Cover	

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 2 (A)  
 Total Number of Dominant Species Across all Strata: 2 (B)  
 Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>35</u>	x 2 = <u>70</u>
FAC species <u>30</u>	x 3 = <u>90</u>
FACU species <u>0</u>	x 4 = <u>0</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>65</u> (A)	<u>160</u> (B)
Prevalence Index = B/A= <u>2.46</u>	

### Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
 Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No \_\_\_\_\_

% Bare Ground in Herb Stratum 30 % Cover of Biotic Crust

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation is hydrophytic.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix			Redox Features				Texture	Remarks
	Color (moist)		%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 2	2.5Y	4.0/ 3	100					LOAM	
2 to 11	2.5Y	4.0/ 2	100					SILT LOAM	
11 to 18	7.5YR	7.0/ 2	80	10YR 6/6	5	C	PL	SILTY CLAY LOAM	
18 to 18	7.5YR	5.0/ 1	15		5	C	PL	SILTY CLAY	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)           |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)       |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)   |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)   |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input type="checkbox"/> Depleted Matrix (F3)       |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)     |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)          |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |   |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- |   |
|---|
| <input type="checkbox"/> 1 cm Muck (A9) (LRR C)     |
| <input type="checkbox"/> 2 cm Muck (A10) (LRR B)    |
| <input type="checkbox"/> Reduced Vertic (F18)       |
| <input type="checkbox"/> Red Parent Material (TF2)  |
| <input type="checkbox"/> Other (Explain in Remarks) |

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No X

## Remarks:

No hydric indicators observed in soil profile, though depleted layer is very close to meeting criteria.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                           | <input checked="" type="checkbox"/> Aquatic Fauna (B13)                |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- |   |
|---|
| <input type="checkbox"/> Water Marks (B1) (Riverine)            |
| <input type="checkbox"/> Sediment Deposits (B2) (Riverine)      |
| <input type="checkbox"/> Drift Deposits (B3) (Riverine)         |
| <input type="checkbox"/> Drainage Patterns (B10)                |
| <input type="checkbox"/> Dry-Season Water Table (C2)            |
| <input type="checkbox"/> Crayfish Burrows (C8)                  |
| <input type="checkbox"/> Saturation Visible on Aerial Imag.(C9) |
| <input type="checkbox"/> Shallow Aquitard (D3)                  |
| <input checked="" type="checkbox"/> FAC-Neutral Test (D5)       |

**Field Observations:**Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Water Table Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Saturation Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_

(includes capillary fringe)

**Wetland Hydrology Present?** Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

Sampling point meets criteria for wetland hydrology.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 8/9/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: \_\_\_\_\_ Sampling Point: 12-N-201208091100  
 Investigators: Trent Toler Section, Township, Range S 22 T 4 R 2  
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): Concave Slope(%) 0  
 Subregion (LRR): LRR D Lat: 41.0684108124 Long: -112.057578739 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Ford loam, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> <b>Wetland ID:</b> _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks:  
 Low spot in pasture where water collects. Not a wetland.

## VEGETATION— Use scientific names of plants.

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
<u>Puccinellia nuttalliana</u>	<u>50</u>	<u>Y</u>	<u>FACW</u>
<u>Distichlis spicata</u>	<u>20</u>	<u>Y</u>	<u>FAC</u>
<u>Hordeum jubatum</u>	<u>15</u>	<u>N</u>	<u>FAC</u>
<u>Carex praegracilis</u>	<u>5</u>	<u>N</u>	<u>FACW</u>
<u>Juncus arcticus</u>	<u>5</u>	<u>N</u>	<u>FACW</u>
<u>Lepidium latifolium</u>	<u>5</u>	<u>N</u>	<u>FAC</u>
	<u>100</u>	<u>=Total Cover</u>	

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across all Strata: 2 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>60</u>	x 2 = <u>120</u>
FAC species <u>40</u>	x 3 = <u>120</u>
FACU species <u>0</u>	x 4 = <u>0</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>100</u> (A)	<u>240</u> (B)

Prevalence Index = B/A = 2.40

### Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
 Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No \_\_\_\_\_

% Bare Ground in Herb Stratum 10 % Cover of Biotic Crust

Remarks: (Include photo numbers here or on a separate sheet.)

Mixed wet meadow community is hydrophytic.



**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 6	10YR	4.0 / 2					SILTY CLAY	
6 to 13	10YR	4.0 / 2	7.5YR 5/3	40	C	M	SILTY CLAY	
13 to 18	7.5YR	5.0 / 3					CLAY LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- ☐ Histosol (A1)  
☐ Histic Epipedon (A2)  
☐ Black Histic (A3)  
☐ Hydrogen Sulfide (A4)  
☐ Stratified Layers (A5) LRR C  
☐ 1 cm Muck (A9) LRR F D  
☐ Depleted Below Dark Surface (A11)  
☐ Thick Dark Surface (A12)  
☐ Sandy Mucky Mineral (S1)  
☐ Sandy Gleyed Matrix (S4)

- ☐ Sandy Redox (S5)  
☐ Stripped Matrix (S6)  
☐ Loamy Mucky Mineral (F1)  
☐ Loamy Gleyed Matrix (F2)  
☐ Depleted Matrix (F3)  
☐ Redox Dark Surface (F6)  
☐ Depleted Dark Surface (F7)  
☐ Redox Depressions (F8)  
☐ Vernal Pools (F9)

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)  
☐ 2 cm Muck (A10) (LRR B)  
☐ Reduced Vertic (F18)  
☐ Red Parent Material (TF2)  
☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No X

## Remarks:

Concentrations are "faint," not distinct or prominent, and only a chroma of 3. Soil does not meet any hydric indicators.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)  
☐ High Water Table (A2)  
☐ Saturation (A3)  
☐ Water Marks (B1) (Nonriverine)  
☐ Sediment Deposits (B2) (Nonriverine)  
☐ Drift Deposits (B3) (Nonriverine)  
☒ Surface Soil Cracks (B6)  
☐ Inundation Visible on Aerial Imagery (B7)  
☐ Water-Stained Leaves (B9)  
☐ Salt Crust (B11)  
☐ Biotic Crust (B12)  
☐ Aquatic Fauna (B13)  
☐ Hydrogen Sulfide Odor (C1)  
☐ Oxidized Rhizospheres along Living Roots (C3)  
☐ Presence of Reduced Iron (C4)  
☐ Recent Iron Reduction in Tilled Soils (C6)  
☐ Thin Muck Surface (C7)  
☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)  
☐ Sediment Deposits (B2) (Riverine)  
☐ Drift Deposits (B3) (Riverine)  
☐ Drainage Patterns (B10)  
☐ Dry-Season Water Table (C2)  
☐ Crayfish Burrows (C8)  
☐ Saturation Visible on Aerial Imag.(C9)  
☐ Shallow Aquitard (D3)  
☒ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_  
Water Table Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_  
Saturation Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_  
(includes capillary fringe)

**Wetland Hydrology Present?** Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

Soil dry but deep surface soil cracks suggest ponding of water earlier in the season.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 8/14/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: \_\_\_\_\_ Sampling Point: 12-N-201208141136  
 Investigators: Trent Toler Section, Township, Range S 22 T 4 R 2  
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): Concave Slope(%) 1  
 Subregion (LRR): LRR D Lat: 41.0681854556 Long: -112.056872648 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Ford loam, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology X, significantly disturbed? Are "Normal Circumstances" present? Yes \_\_\_\_\_ No X  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology X, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> <b>Wetland ID:</b> _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	

Remarks:  
 Low spot in pasture where water has collected not a wetland. Hydrology is drying up.

## VEGETATION— Use scientific names of plants.

**Absolute % Cover** **Dominant Species** **Indicator Status**

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

Phalaris arundinacea	90	Y	FACW
Distichlis spicata	10	N	FAC
Atriplex micrantha	5	N	UPL
Hordeum jubatum	5	N	FAC
	110	=Total Cover	

### Vine Stratum

## Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across all Strata: 1 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

## Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>90</u>	x 2 = <u>180</u>
FAC species <u>15</u>	x 3 = <u>45</u>
FACU species <u>0</u>	x 4 = <u>0</u>
UPL species <u>5</u>	x 5 = <u>25</u>
Column Totals: <u>110</u> (A)	<u>250</u> (B)

Prevalence Index = B/A = 2.27

## Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
 Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No \_\_\_\_\_

% Bare Ground in Herb Stratum 3 % Cover of Biotic Crust

Remarks: (Include photo numbers here or on a separate sheet.)

Phalaris dominated area.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix			Redox Features				Texture	Remarks
	Color (moist)		%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 8	10YR	3.0/ 2	100					CLAY LOAM	
8 to 12	10YR	4.0/ 2	100					CLAY LOAM	
12 to 16	10YR	5.0/ 2	95	10YR 6/2	5	D	M	CLAY LOAM	
16 to 18	10YR	5.0/ 2	70	10YR 6/2	30	D	M	CLAY LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)           |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)       |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)   |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)   |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input type="checkbox"/> Depleted Matrix (F3)       |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)     |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)          |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |   |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)  
☐ 2 cm Muck (A10) (LRR B)  
☐ Reduced Vertic (F18)  
☐ Red Parent Material (TF2)  
☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No X

## Remarks:

Calcic horizon at 16 in. Soils failed to meet hydric indicators.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                           | <input checked="" type="checkbox"/> Aquatic Fauna (B13)                |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)  
☐ Sediment Deposits (B2) (Riverine)  
☐ Drift Deposits (B3) (Riverine)  
☐ Drainage Patterns (B10)  
☐ Dry-Season Water Table (C2)  
☐ Crayfish Burrows (C8)  
☐ Saturation Visible on Aerial Imag.(C9)  
☐ Shallow Aquitard (D3)  
☒ FAC-Neutral Test (D5)

**Field Observations:**Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Water Table Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Saturation Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_

(includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

Only a few snail shells found, not considered adequate fro B13.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 8/15/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 4 Sampling Point: 12-N-201208151018  
 Investigators: Trent Toler Section, Township, Range S 22 T 4 R 2  
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): Concave Slope(%) 0  
 Subregion (LRR): LRR D Lat: 41.067431875 Long: -112.057428271 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Ford loam, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes \_\_\_\_\_ No X  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology X, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> <b>Wetland ID:</b> _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks:  
 Low spot in pasture where water temporarily pools. Deep cracks and Hordeum, but not a wetland.

## VEGETATION— Use scientific names of plants.

<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
<u>50</u>	<u>Y</u>	<u>FAC</u>
<u>25</u>	<u>Y</u>	<u>FACW</u>
<u>15</u>	<u>N</u>	<u>FACW</u>
<u>5</u>	<u>N</u>	<u>FAC</u>
<u>3</u>	<u>N</u>	<u>FACU</u>
<u>98</u>	<u>=Total Cover</u>	

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

<u>Hordeum jubatum</u>	<u>50</u>	<u>Y</u>	<u>FAC</u>
<u>Poa trivialis</u>	<u>25</u>	<u>Y</u>	<u>FACW</u>
<u>Puccinellia nuttalliana</u>	<u>15</u>	<u>N</u>	<u>FACW</u>
<u>Lepidium latifolium</u>	<u>5</u>	<u>N</u>	<u>FAC</u>
<u>Trifolium fragiferum</u>	<u>3</u>	<u>N</u>	<u>FACU</u>

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across all Strata: 2 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>40</u>	x 2 = <u>80</u>
FAC species <u>55</u>	x 3 = <u>165</u>
FACU species <u>3</u>	x 4 = <u>12</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>98</u> (A)	<u>257</u> (B)

Prevalence Index = B/A = 2.62

### Hydrophytic Vegetation Indicators:

   Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
   Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
   Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No \_\_\_\_\_

% Bare Ground in Herb Stratum 25 % Cover of Biotic Crust \_\_\_\_\_

Remarks: (Include photo numbers here or on a separate sheet.)

Mostly a FAC community with some FACW.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)		%	Color (moist)	%	Type <sup>1</sup>		
0 to 7	10YR	4.0/ 2	100				CLAY	
7 to 12	10YR	4.0/ 2	60	10YR 5/3	40		CLAY	
12 to 16	7.5YR	5.0/ 2	100				CLAY LOAM	
16 to 18	7.5YR	4.0/ 2	100				SILTY CLAY LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)           |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)       |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)   |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)   |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input type="checkbox"/> Depleted Matrix (F3)       |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)     |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)          |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |   |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)  
☐ 2 cm Muck (A10) (LRR B)  
☐ Reduced Vertic (F18)  
☐ Red Parent Material (TF2)  
☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No X

## Remarks:

Failed to meet hydric soil indicators.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input checked="" type="checkbox"/> Surface Soil Cracks (B6)       | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)  
☐ Sediment Deposits (B2) (Riverine)  
☐ Drift Deposits (B3) (Riverine)  
☐ Drainage Patterns (B10)  
☐ Dry-Season Water Table (C2)  
☐ Crayfish Burrows (C8)  
☐ Saturation Visible on Aerial Imag.(C9)  
☐ Shallow Aquitard (D3)  
☒ FAC-Neutral Test (D5)

**Field Observations:**Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Water Table Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Saturation Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_

(includes capillary fringe)

**Wetland Hydrology Present?** Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

Soil very dry and deeply cracked. Area appears to be isolated.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 8/17/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 3 Sampling Point: 12-N-201208171342  
 Investigators: Trent Toler Section, Township, Range S 16 T 4 R 2  
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): Concave Slope(%) 1  
 Subregion (LRR): LRR D Lat: 41.0750941405 Long: -112.067738063 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Ford loam, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes \_\_\_\_\_ No X  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology X, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> Wetland ID: _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks:  
 Low spot in pasture where water collects. Appears to fail as a wetland. Very small, about 20'x20'.

## VEGETATION— Use scientific names of plants.

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
Salicornia rubra	40	Y	OBL
Puccinellia nuttalliana	30	Y	FACW
Distichlis spicata	5	N	FAC
	75	=Total Cover	

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across all Strata: 2 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>40</u>	x 1 = <u>40</u>
FACW species <u>30</u>	x 2 = <u>60</u>
FAC species <u>5</u>	x 3 = <u>15</u>
FACU species <u>0</u>	x 4 = <u>0</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>75</u> (A)	<u>115</u> (B)

Prevalence Index = B/A = 1.53

### Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
 Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No \_\_\_\_\_

% Bare Ground in Herb Stratum 30 % Cover of Biotic Crust

Remarks: (Include photo numbers here or on a separate sheet.)

Alkaline vegetation species with large areas of bare soil.



**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 3	7.5YR 3.0/ 2	100					CLAY	
3 to 11	7.5YR 4.0/ 2	100					CLAY LOAM	
11 to 19	7.5YR 3.0/ 2	100					SANDY LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)           |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)       |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)   |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)   |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input type="checkbox"/> Depleted Matrix (F3)       |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)     |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)          |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |   |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)  
☐ 2 cm Muck (A10) (LRR B)  
☐ Reduced Vertic (F18)  
☐ Red Parent Material (TF2)  
☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No X

## Remarks:

Hue is redder than normal, but no hydric soil indicators.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input checked="" type="checkbox"/> Surface Soil Cracks (B6)       | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)  
☐ Sediment Deposits (B2) (Riverine)  
☐ Drift Deposits (B3) (Riverine)  
☐ Drainage Patterns (B10)  
☐ Dry-Season Water Table (C2)  
☐ Crayfish Burrows (C8)  
☐ Saturation Visible on Aerial Imag.(C9)  
☐ Shallow Aquitard (D3)  
☒ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present?	Yes _____ No <u>X</u>	Depth (inches): _____
Water Table Present?	Yes _____ No <u>X</u>	Depth (inches): _____
Saturation Present?	Yes _____ No <u>X</u>	Depth (inches): _____

(includes capillary fringe)

**Wetland Hydrology Present?** Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

Prominent surface soil cracks suggest ponding.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 7/31/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 4 Sampling Point: 12-W-201207311255  
 Investigators: Mike Perkins Nate Nichols Section, Township, Range S 21 T 4 R 2  
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): Concave Slope(%) 1  
 Subregion (LRR): LRR D Lat: 41.0686686409 Long: -112.067088542 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Ford loam, 0 to 1 percent slopes NWI Classification: PEMC

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No        (If No, explain in Remarks)  
 Are Vegetation       , Soil       , Hydrology       , significantly disturbed? Are "Normal Circumstances" present? Yes        No X  
 Are Vegetation       , Soil X, Hydrology X, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No <u>      </u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No <u>      </u> Wetland ID: <u>12-IW-18</u>
Hydric Soil Present? Yes <u>X</u> No <u>      </u>	
Wetland Hydrology Present? Yes <u>X</u> No <u>      </u>	

Remarks:  
 Saline depression wetland that appears to be isolated.

## VEGETATION— Use scientific names of plants.

**Absolute % Cover** **Dominant Species** **Indicator Status**

### Tree Stratum

### Shrub Stratum (Plot size: 30 Ft )

Sarcobatus vermiculatus

5 Y FAC

5 =Total Cover

### Herb Stratum (Plot size: 30 Ft )

Distichlis spicata

25 Y FAC

Salicornia rubra

20 Y OBL

Allenrolfea occidentalis

5 N FACW

Hordeum pusillum

5 N FACU

55 =Total Cover

### Vine Stratum

## Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across all Strata: 3 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

## Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>20</u>	x 1 = <u>20</u>
FACW species <u>5</u>	x 2 = <u>10</u>
FAC species <u>30</u>	x 3 = <u>90</u>
FACU species <u>5</u>	x 4 = <u>20</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>60</u> (A)	<u>140</u> (B)

Prevalence Index = B/A= 2.33

## Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
 Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No       

% Bare Ground in Herb Stratum 35 % Cover of Biotic Crust

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation is hydrophytic.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)**

Depth (inches)	Matrix		%	Redox Features				Texture	Remarks
	Color (moist)			Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 8	7.5YR	4.0/ 3	94	Gley1 5/10Y	5	C	M	SANDY LOAM	
0 to 8	/			5YR 5/8	1	C	M	SANDY LOAM	
8 to 12	10YR	3.0/ 3	100					SILTY CLAY LOAM	
12 to 18	5YR	4.0/ 4	100					CLAY LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)           |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)       |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)   |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)   |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input type="checkbox"/> Depleted Matrix (F3)       |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)     |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)          |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |   |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)  
☐ 2 cm Muck (A10) (LRR B)  
☐ Reduced Vertic (F18)  
☐ Red Parent Material (TF2)  
☒ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes X No \_\_\_\_\_**Remarks:**

Soil profile does not meet criteria for hydric indicators, but considered a problem soil with saline conditions. Evidence of wetland hydrology and depressional topography also add support.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |   |
|--|---|
| <input type="checkbox"/> Surface Water (A1)                        | <input checked="" type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                                       |
| <input checked="" type="checkbox"/> Saturation (A3)                | <input type="checkbox"/> Aquatic Fauna (B13)                                      |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                               |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input checked="" type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                            |
| <input checked="" type="checkbox"/> Surface Soil Cracks (B6)       | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)               |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                                   |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                               |

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)  
☐ Sediment Deposits (B2) (Riverine)  
☐ Drift Deposits (B3) (Riverine)  
☐ Drainage Patterns (B10)  
☐ Dry-Season Water Table (C2)  
☐ Crayfish Burrows (C8)  
☐ Saturation Visible on Aerial Imag.(C9)  
☐ Shallow Aquitard (D3)  
☒ FAC-Neutral Test (D5)

**Field Observations:**Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Water Table Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Saturation Present? Yes X No \_\_\_\_\_ Depth (inches): 11

(includes capillary fringe)

**Wetland Hydrology Present?** Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

**Remarks:**

Sampling point meets criteria for wetland hydrology during dry time of year for seasonal wetlands (7/31/12). confirmed area appears Isolated with no surface connection.

Revisited 4/25/13 with saturation at 11 inches. Also

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 7/31/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet:  Sampling Point: 12-W-201207311438  
 Investigators: Mike Perkins Nate Nichols Section, Township, Range S 21 T 4 R 2  
 Landform (hillslope, terrace, etc.): Basin Local Relief (concave, convex, none): Concave Slope(%) 5  
 Subregion (LRR): LRR D Lat: 41.067450234 Long: -112.067902249 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Ford loam, 0 to 1 percent slopes NWI Classification: PEMC

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No  (If No, explain in Remarks)  
 Are Vegetation , Soil , Hydrology , significantly disturbed? Are "Normal Circumstances" present? Yes X No   
 Are Vegetation , Soil , Hydrology , naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No <u></u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No <u></u> Wetland ID: <u>12-W-47</u>
Hydric Soil Present? Yes <u>X</u> No <u></u>	
Wetland Hydrology Present? Yes <u>X</u> No <u></u>	

Remarks:  
 Sampling point is a wetland.

## VEGETATION - Use scientific names of plants.

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
Eleocharis palustris	60	Y	OBL
Phragmites australis	10	N	FACW
Schoenoplectus pungens	10	N	OBL
Typha latifolia	10	N	OBL
Hordeum jubatum	5	N	FAC
Trifolium fragiferum	5	N	FACU
	100	=Total Cover	

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across all Strata: 1 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>80</u>	x 1 = <u>80</u>
FACW species <u>10</u>	x 2 = <u>20</u>
FAC species <u>5</u>	x 3 = <u>15</u>
FACU species <u>5</u>	x 4 = <u>20</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>100</u> (A)	<u>135</u> (B)

Prevalence Index = B/A = 1.35

### Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
 Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No

% Bare Ground in Herb Stratum 0 % Cover of Biotic Crust

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation is hydrophytic.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)**

Depth (inches)	Matrix			Redox Features				Texture	Remarks
	Color (moist)		%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 8	10YR	4.0 / 2	95	Gley1 2.5/N	5	C	M	SANDY LOAM	
8 to 13	10YR	3.0 / 3	100					SILT LOAM	
13 to 18	7.5YR	4.0 / 3	85	7.5 yr 6/3	15	C	M	SILTY CLAY	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |  |
|--|--|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)                |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)            |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)        |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)        |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input checked="" type="checkbox"/> Depleted Matrix (F3) |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)         |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7)      |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)          |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)               |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |  |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)  
☐ 2 cm Muck (A10) (LRR B)  
☐ Reduced Vertic (F18)  
☐ Red Parent Material (TF2)  
☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?**

Yes

X

No

## Remarks:

Soil meets criteria for hydric indicator F3.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input checked="" type="checkbox"/> Saturation (A3)                | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)  
☐ Sediment Deposits (B2) (Riverine)  
☐ Drift Deposits (B3) (Riverine)  
☐ Drainage Patterns (B10)  
☐ Dry-Season Water Table (C2)  
☐ Crayfish Burrows (C8)  
☐ Saturation Visible on Aerial Imag.(C9)  
☐ Shallow Aquitard (D3)  
☒ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present?	Yes	_____	No	<u>X</u>	Depth (inches):	_____
Water Table Present?	Yes	_____	No	<u>X</u>	Depth (inches):	_____
Saturation Present?	Yes	<u>X</u>	No	_____	Depth (inches):	<u>0</u>

(includes capillary fringe)

**Wetland Hydrology Present?**

Yes

X

No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

Wetland hydrology present.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 8/1/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 4 Sampling Point: 12-W-201208011055  
 Investigators: Donovan Gross Nate Nichols Section, Township, Range S 22 T 4 R 2  
 Landform (hillslope, terrace, etc.): Basin Local Relief (concave, convex, none): Concave Slope(%) 5  
 Subregion (LRR): LRR D Lat: 41.0675631427 Long: -112.06281401 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Ford loam, 0 to 1 percent slopes NWI Classification: PEMF

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No        (If No, explain in Remarks)  
 Are Vegetation X, Soil       , Hydrology       , significantly disturbed? Are "Normal Circumstances" present? Yes        No X  
 Are Vegetation       , Soil       , Hydrology X, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No <u>      </u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No <u>      </u> <b>Wetland ID:</b> <u>12-W-19</u>
Hydric Soil Present? Yes <u>X</u> No <u>      </u>	
Wetland Hydrology Present? Yes <u>X</u> No <u>      </u>	

Remarks:  
 Site appears to be a wetland, though some of the hydrophytic vegetation has been sprayed with an herbicide.

## VEGETATION— Use scientific names of plants.

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
Juncus arcticus	40	Y	FACW
Lepidium latifolium	20	Y	FAC
Carex praegracilis	15	N	FACW
Distichlis spicata	15	N	FAC
Schoenoplectus pungens	5	N	OBL
Typha latifolia	5	N	OBL
	100	=Total Cover	

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across all Strata: 2 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>10</u>	x 1 = <u>10</u>
FACW species <u>55</u>	x 2 = <u>110</u>
FAC species <u>35</u>	x 3 = <u>105</u>
FACU species <u>0</u>	x 4 = <u>0</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>100</u> (A)	<u>225</u> (B)

Prevalence Index = B/A = 2.25

### Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
 Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No       

% Bare Ground in Herb Stratum 0 % Cover of Biotic Crust

Remarks: (Include photo numbers here or on a separate sheet.)  
 Vegetation is hydrophytic. Appears that rush and cattails were sprayed with herbicide.



**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix			Redox Features				Texture	Remarks
	Color (moist)		%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 4	10YR	3.0 / 2	80	10YR 2/1	20	C	PL	SANDY LOAM	
4 to 11	10YR	6.0 / 2	60	10YR 2/1	40	C	M	FINE SAND	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- ☐ Histosol (A1)  
☐ Histic Epipedon (A2)  
☐ Black Histic (A3)  
☐ Hydrogen Sulfide (A4)  
☐ Stratified Layers (A5) LRR C  
☐ 1 cm Muck (A9) LRR F D  
☒ Depleted Below Dark Surface (A11)  
☐ Thick Dark Surface (A12)  
☐ Sandy Mucky Mineral (S1)  
☐ Sandy Gleyed Matrix (S4)

- ☐ Sandy Redox (S5)  
☐ Stripped Matrix (S6)  
☐ Loamy Mucky Mineral (F1)  
☐ Loamy Gleyed Matrix (F2)  
☒ Depleted Matrix (F3)  
☐ Redox Dark Surface (F6)  
☐ Depleted Dark Surface (F7)  
☐ Redox Depressions (F8)  
☐ Vernal Pools (F9)

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)  
☐ 2 cm Muck (A10) (LRR B)  
☐ Reduced Vertic (F18)  
☐ Red Parent Material (TF2)  
☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): --

**Hydric Soil Present?** Yes X No \_\_\_\_\_**Remarks:**

Soil can fit hydric indicators A11 or F3, although manganese concentrations may be too faint to fit A11.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)  
☐ High Water Table (A2)  
☐ Saturation (A3)  
☐ Water Marks (B1) (Nonriverine)  
☐ Sediment Deposits (B2) (Nonriverine)  
☐ Drift Deposits (B3) (Nonriverine)  
☐ Surface Soil Cracks (B6)  
☐ Inundation Visible on Aerial Imagery (B7)  
☐ Water-Stained Leaves (B9)  
☐ Salt Crust (B11)  
☐ Biotic Crust (B12)  
☐ Aquatic Fauna (B13)  
☐ Hydrogen Sulfide Odor (C1)  
☒ Oxidized Rhizospheres along Living Roots (C3)  
☐ Presence of Reduced Iron (C4)  
☐ Recent Iron Reduction in Tilled Soils (C6)  
☐ Thin Muck Surface (C7)  
☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)  
☐ Sediment Deposits (B2) (Riverine)  
☐ Drift Deposits (B3) (Riverine)  
☒ Drainage Patterns (B10)  
☐ Dry-Season Water Table (C2)  
☐ Crayfish Burrows (C8)  
☐ Saturation Visible on Aerial Imag.(C9)  
☐ Shallow Aquitard (D3)  
☒ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches): --  
Water Table Present? Yes \_\_\_\_\_ No X Depth (inches): --  
Saturation Present? Yes \_\_\_\_\_ No X Depth (inches): --  
(includes capillary fringe)

**Wetland Hydrology Present?** Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

**Remarks:**

Sampling point meets criteria for wetland hydrology.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 8/1/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: \_\_\_\_\_ Sampling Point: 12-W-201208011308  
 Investigators: Mike Perkins Donovan Gross Section, Township, Range S 22 T 4 R 2  
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): Concave Slope(%) 1  
 Subregion (LRR): LRR D Lat: 41.0692522631 Long: -112.059828329 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Ford loam, shallow water table, 0 to 1 percent slopes NWI Classification: PEMC  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes \_\_\_\_\_ No X  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology X, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ <b>Wetland ID:</b> <u>12-IW-31</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks:  
 Sample point suggests area is a wetland. Appears to be isolated.

## VEGETATION— Use scientific names of plants.

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
Eleocharis palustris	30	Y	OBL
Hordeum jubatum	10	Y	FAC
Trifolium fragiferum	5	N	FACU
Polypogon monspeliensis	2	N	FACW
Schoenoplectus pungens	2	N	OBL
	49	=Total Cover	

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across all Strata: 2 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>32</u>	x 1 = <u>32</u>
FACW species <u>2</u>	x 2 = <u>4</u>
FAC species <u>10</u>	x 3 = <u>30</u>
FACU species <u>5</u>	x 4 = <u>20</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>49</u> (A)	<u>86</u> (B)

Prevalence Index = B/A = 1.76

### Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
 \_\_\_\_\_ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 \_\_\_\_\_ Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No \_\_\_\_\_

% Bare Ground in Herb Stratum 5 % Cover of Biotic Crust \_\_\_\_\_

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation is hydrophytic.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix			Redox Features				Texture	Remarks
	Color (moist)		%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 10	10YR	4.0 / 1	85	10YR 6/4	5	C	M	CLAY	
10 to 18	10YR	4.0 / 1	60	10YR 6/4	35	C	M	CLAY	
10 to 18	/			GLE Y1 2.5/N	5	C	M	CLAY	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |  |
|--|--|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)                |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)            |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)        |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)        |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input checked="" type="checkbox"/> Depleted Matrix (F3) |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)         |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7)      |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)          |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)               |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |  |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)  
☐ 2 cm Muck (A10) (LRR B)  
☐ Reduced Vertic (F18)  
☐ Red Parent Material (TF2)  
☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes X No \_\_\_\_\_

## Remarks:

Soil profile meets F3 indicator.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input checked="" type="checkbox"/> Saturation (A3)                | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)  
☐ Sediment Deposits (B2) (Riverine)  
☐ Drift Deposits (B3) (Riverine)  
☐ Drainage Patterns (B10)  
☐ Dry-Season Water Table (C2)  
☐ Crayfish Burrows (C8)  
☐ Saturation Visible on Aerial Imag.(C9)  
☐ Shallow Aquitard (D3)  
☒ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present?	Yes _____ No <u>X</u>	Depth (inches):	_____
Water Table Present?	Yes _____ No <u>X</u>	Depth (inches):	_____
Saturation Present?	Yes <u>X</u> No _____	Depth (inches):	_____ 0

(includes capillary fringe)

**Wetland Hydrology Present?** Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

Sampling point meets criteria for wetland hydrology.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 8/1/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: \_\_\_\_\_ Sampling Point: 12-W-201208011350  
 Investigators: Mike Perkins Donovan Gross Section, Township, Range S 22 T 4 R 2  
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): Convex Slope(%) 1  
 Subregion (LRR): LRR D Lat: 41.0691314215 Long: -112.059369316 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Ford loam, shallow water table, 0 to 1 percent slopes NWI Classification: PEMC  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes \_\_\_\_\_ No X  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology X, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ <b>Wetland ID:</b> <u>12-IW-31</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks:  
 Sample point suggests area is a wetland.

## VEGETATION— Use scientific names of plants.

<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
-------------------------	-------------------------	-------------------------

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

Distichlis spicata	25	Y	FAC
Puccinellia nuttalliana	20	Y	FACW
Hordeum jubatum	15	Y	FAC
Carex praegracilis	5	N	FACW
Juncus arcticus	5	N	FACW
	70	=Total Cover	

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 3 (A)  
 Total Number of Dominant Species Across all Strata: 3 (B)  
 Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>30</u>	x 2 = <u>60</u>
FAC species <u>40</u>	x 3 = <u>120</u>
FACU species <u>0</u>	x 4 = <u>0</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>70</u> (A)	<u>180</u> (B)

Prevalence Index = B/A = 2.57

### Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
 Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No \_\_\_\_\_

% Bare Ground in Herb Stratum 10 % Cover of Biotic Crust

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation is hydrophytic.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 3	10YR 3.0/ 2	100		75	C	M	LOAM	
3 to 5	10YR 6.0/ 2	100					SILTY CLAY	
5 to 10	10YR 4.0/ 1	95	10YR 2/1	5	C	PL	SILTY CLAY	
10 to 16	7.5YR 5.0/ 4	85	10YR 2/1	15	C	M	SILTY CLAY	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |  |
|--|--|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)                |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)            |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)        |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)        |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input checked="" type="checkbox"/> Depleted Matrix (F3) |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)         |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7)      |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)          |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)               |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |  |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)  
☐ 2 cm Muck (A10) (LRR B)  
☐ Reduced Vertic (F18)  
☐ Red Parent Material (TF2)  
☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes X No \_\_\_\_\_

## Remarks:

Soil profile meets F3 indicator.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |   |
|--|---|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)   |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                                       |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Fauna (B13)                                      |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                               |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input checked="" type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                            |
| <input checked="" type="checkbox"/> Surface Soil Cracks (B6)       | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)               |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                                   |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                               |

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)  
☐ Sediment Deposits (B2) (Riverine)  
☐ Drift Deposits (B3) (Riverine)  
☐ Drainage Patterns (B10)  
☐ Dry-Season Water Table (C2)  
☐ Crayfish Burrows (C8)  
☐ Saturation Visible on Aerial Imag.(C9)  
☐ Shallow Aquitard (D3)  
☒ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present?	Yes _____ No <u>X</u>	Depth (inches):	____
Water Table Present?	Yes _____ No <u>X</u>	Depth (inches):	____
Saturation Present?	Yes _____ No <u>X</u>	Depth (inches):	____

(includes capillary fringe)

**Wetland Hydrology Present?** Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

Sampling point meets criteria for wetland hydrology. Dry time of year for seasonal wetlands.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 8/3/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 4 Sampling Point: 12-W-201208031420  
 Investigators: Mike Perkins Nate Nichols Section, Township, Range S 22 T 4 R 2  
 Landform (hillslope, terrace, etc.): Basin Local Relief (concave, convex, none): Concave Slope(%) 5  
 Subregion (LRR): LRR D Lat: 41.067834207 Long: -112.05866413 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Ford loam, 0 to 1 percent slopes NWI Classification: PEMF

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No        (If No, explain in Remarks)  
 Are Vegetation       , Soil       , Hydrology       , significantly disturbed? Are "Normal Circumstances" present? Yes        No X  
 Are Vegetation       , Soil       , Hydrology       , naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No <u>      </u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No <u>      </u> Wetland ID: <u>12-IW-32</u>
Hydric Soil Present? Yes <u>X</u> No <u>      </u>	
Wetland Hydrology Present? Yes <u>X</u> No <u>      </u>	

Remarks:  
 Sampling point is a wetland.

## VEGETATION— Use scientific names of plants.

	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
<u>Tree Stratum</u>			
<u>Shrub Stratum</u>			
<u>Herb Stratum</u> (Plot size: <u>30 Ft</u> )			
Juncus arcticus	25	Y	FACW
Distichlis spicata	20	Y	FAC
Carex praegracilis	15	Y	FACW
Hordeum jubatum	15	Y	FAC
Lepidium latifolium	10	N	FAC
Trifolium fragiferum	10	N	FACU
	95	=Total Cover	

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 4 (A)  
 Total Number of Dominant Species Across all Strata: 4 (B)  
 Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>40</u>	x 2 = <u>80</u>
FAC species <u>45</u>	x 3 = <u>135</u>
FACU species <u>10</u>	x 4 = <u>40</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>95</u> (A)	<u>255</u> (B)
Prevalence Index = B/A= <u>2.68</u>	

### Hydrophytic Vegetation Indicators:

       Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
       Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
       Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No       

% Bare Ground in Herb Stratum 5 % Cover of Biotic Crust       

Remarks: (Include photo numbers here or on a separate sheet.)  
 Vegetation is hydrophytic.



**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)**

Depth (inches)	Matrix			Redox Features				Texture	Remarks
	Color (moist)		%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 6	2.5YR	4.0 / 2	100					SILTY CLAY LOAM	
6 to 18	10YR	6.0 / 2	70	10YR 5/1	30	D	M	CLAY	
18 to 18	10YR	5.0 / 8	1		30	D	M	CLAY	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |  |
|--|--|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)                |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)            |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)        |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)        |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input checked="" type="checkbox"/> Depleted Matrix (F3) |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)         |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7)      |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)          |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)               |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |  |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- |   |
|---|
| <input type="checkbox"/> 1 cm Muck (A9) (LRR C)     |
| <input type="checkbox"/> 2 cm Muck (A10) (LRR B)    |
| <input type="checkbox"/> Reduced Vertic (F18)       |
| <input type="checkbox"/> Red Parent Material (TF2)  |
| <input type="checkbox"/> Other (Explain in Remarks) |

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?**Yes   X  

No \_\_\_\_\_

## Remarks:

Soil meets criteria for hydric indicator F3.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                           | <input checked="" type="checkbox"/> Aquatic Fauna (B13)                |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input checked="" type="checkbox"/> Surface Soil Cracks (B6)       | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- |   |
|---|
| <input type="checkbox"/> Water Marks (B1) (Riverine)            |
| <input type="checkbox"/> Sediment Deposits (B2) (Riverine)      |
| <input type="checkbox"/> Drift Deposits (B3) (Riverine)         |
| <input type="checkbox"/> Drainage Patterns (B10)                |
| <input type="checkbox"/> Dry-Season Water Table (C2)            |
| <input type="checkbox"/> Crayfish Burrows (C8)                  |
| <input type="checkbox"/> Saturation Visible on Aerial Imag.(C9) |
| <input type="checkbox"/> Shallow Aquitard (D3)                  |
| <input checked="" type="checkbox"/> FAC-Neutral Test (D5)       |

**Field Observations:**

Surface Water Present?	Yes _____ No <u>  X  </u>	Depth (inches): _____
Water Table Present?	Yes _____ No <u>  X  </u>	Depth (inches): _____
Saturation Present?	Yes _____ No <u>  X  </u>	Depth (inches): _____

(includes capillary fringe)

**Wetland Hydrology Present?**Yes   X  

No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

Sampling point meets criteria for wetland hydrology.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 8/6/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: \_\_\_\_\_ Sampling Point: 12-W-201208061306  
 Investigators: Mike Perkins Nate Nichols Section, Township, Range S 22 T 4 R 2  
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): Concave Slope(%) 1  
 Subregion (LRR): LRR D Lat: 41.0689602081 Long: -112.059602708 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Ford loam, shallow water table, 0 to 1 percent slopes NWI Classification: PEMC  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes \_\_\_\_\_ No X  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology X, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ <b>Wetland ID:</b> <u>12-IW-31</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks:  
 Sampling point is a wetland.

## VEGETATION— Use scientific names of plants.

**Absolute % Cover** **Dominant Species** **Indicator Status**

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

Distichlis spicata	30	Y	FAC
Hordeum jubatum	20	Y	FAC
Trifolium fragiferum	15	N	FACU
Poa secunda	10	N	FACU
Puccinellia nuttalliana	10	N	FACW
Epilobium torreyi	5	N	FACW
Juncus arcticus	5	N	FACW
	95	=Total Cover	

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 2 (A)  
 Total Number of Dominant Species Across all Strata: 2 (B)  
 Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>20</u>	x 2 = <u>40</u>
FAC species <u>50</u>	x 3 = <u>150</u>
FACU species <u>25</u>	x 4 = <u>100</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>95</u> (A)	<u>290</u> (B)
Prevalence Index = B/A= <u>3.05</u>	

### Hydrophytic Vegetation Indicators:

\_\_\_\_ Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
 \_\_\_\_ Prevalence Index ≤ 3.0  
 \_\_\_\_ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 \_\_\_\_ Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No \_\_\_\_\_

% Bare Ground in Herb Stratum 5 % Cover of Biotic Crust

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation passes Dominance Test to qualify as hydrophytic.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix			Redox Features				Texture	Remarks
	Color (moist)		%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 2	10YR	3.0/ 3	100						Organic root mat
2 to 9	2.5YR	5.0/ 2	60	Gley1 2.5/N	40	C	M	SILTY CLAY LOAM	
9 to 18	2.5YR	5.0/ 2	70	10YR 7/3	30	C	M	SILTY CLAY	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |  |
|--|--|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)                |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)            |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)        |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)        |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input checked="" type="checkbox"/> Depleted Matrix (F3) |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)         |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7)      |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)          |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)               |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |  |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- |   |
|---|
| <input type="checkbox"/> 1 cm Muck (A9) (LRR C)     |
| <input type="checkbox"/> 2 cm Muck (A10) (LRR B)    |
| <input type="checkbox"/> Reduced Vertic (F18)       |
| <input type="checkbox"/> Red Parent Material (TF2)  |
| <input type="checkbox"/> Other (Explain in Remarks) |

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes  X  No \_\_\_\_\_

## Remarks:

Soil meets criteria for hydric indicator F3.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                           | <input checked="" type="checkbox"/> Aquatic Fauna (B13)                |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- |   |
|---|
| <input type="checkbox"/> Water Marks (B1) (Riverine)            |
| <input type="checkbox"/> Sediment Deposits (B2) (Riverine)      |
| <input type="checkbox"/> Drift Deposits (B3) (Riverine)         |
| <input type="checkbox"/> Drainage Patterns (B10)                |
| <input type="checkbox"/> Dry-Season Water Table (C2)            |
| <input type="checkbox"/> Crayfish Burrows (C8)                  |
| <input type="checkbox"/> Saturation Visible on Aerial Imag.(C9) |
| <input type="checkbox"/> Shallow Aquitard (D3)                  |
| <input type="checkbox"/> FAC-Neutral Test (D5)                  |

**Field Observations:**

Surface Water Present?	Yes _____ No <u> X </u>	Depth (inches): _____
Water Table Present?	Yes _____ No <u> X </u>	Depth (inches): _____
Saturation Present?	Yes _____ No <u> X </u>	Depth (inches): _____

(includes capillary fringe)

**Wetland Hydrology Present?** Yes  X  No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

Meets B13.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 8/6/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet:  Sampling Point: 12-W-201208061333  
 Investigators: Mike Perkins Nate Nichols Section, Township, Range S 22 T 4 R 2  
 Landform (hillslope, terrace, etc.): Basin Local Relief (concave, convex, none): Concave Slope(%) 5  
 Subregion (LRR): LRR D Lat: 41.0685209128 Long: -112.059477397 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Ford loam, shallow water table, 0 to 1 percent slopes NWI Classification: PEMF  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No  (If No, explain in Remarks)  
 Are Vegetation , Soil , Hydrology , significantly disturbed? Are "Normal Circumstances" present? Yes X No   
 Are Vegetation , Soil , Hydrology , naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No <u></u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No <u></u> <b>Wetland ID:</b> <u>12-IW-31</u>
Hydric Soil Present? Yes <u>X</u> No <u></u>	
Wetland Hydrology Present? Yes <u>X</u> No <u></u>	

Remarks:  
 Sampling point is a wetland.

## VEGETATION— Use scientific names of plants.

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
<u>Puccinellia nuttalliana</u>	<u>30</u>	<u>Y</u>	<u>FACW</u>
<u>Distichlis spicata</u>	<u>20</u>	<u>Y</u>	<u>FAC</u>
<u>Carex praegracilis</u>	<u>10</u>	<u>N</u>	<u>FACW</u>
<u>Hordeum jubatum</u>	<u>10</u>	<u>N</u>	<u>FAC</u>
<u>Juncus arcticus</u>	<u>10</u>	<u>N</u>	<u>FACW</u>
<u>Lepidium latifolium</u>	<u>10</u>	<u>N</u>	<u>FAC</u>
	<u>90</u>	<u>=Total Cover</u>	

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across all Strata: 2 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>50</u>	x 2 = <u>100</u>
FAC species <u>40</u>	x 3 = <u>120</u>
FACU species <u>0</u>	x 4 = <u>0</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>90</u> (A)	<u>220</u> (B)

Prevalence Index = B/A = 2.44

### Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
 Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No

% Bare Ground in Herb Stratum 10 % Cover of Biotic Crust

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation is hydrophytic.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix			Redox Features				Texture	Remarks
	Color (moist)		%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 2	10YR	4.0/ 3	100					SILTY CLAY LOAM	
2 to 8	10YR	4.0/ 2	85	7.5YR 6/4	15	D	M	SILTY CLAY LOAM	
8 to 18	7.5YR	5.0/ 3	80	7.5YR 4/1	20	D	M	SILTY CLAY LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |  |
|--|--|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)                |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)            |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)        |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)        |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input checked="" type="checkbox"/> Depleted Matrix (F3) |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)         |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7)      |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)          |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)               |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |  |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- |   |
|---|
| <input type="checkbox"/> 1 cm Muck (A9) (LRR C)     |
| <input type="checkbox"/> 2 cm Muck (A10) (LRR B)    |
| <input type="checkbox"/> Reduced Vertic (F18)       |
| <input type="checkbox"/> Red Parent Material (TF2)  |
| <input type="checkbox"/> Other (Explain in Remarks) |

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes X No \_\_\_\_\_

## Remarks:

Soil meets criteria for hydric indicator F3.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input checked="" type="checkbox"/> Biotic Crust (B12)                 |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input checked="" type="checkbox"/> Surface Soil Cracks (B6)       | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- |   |
|---|
| <input type="checkbox"/> Water Marks (B1) (Riverine)            |
| <input type="checkbox"/> Sediment Deposits (B2) (Riverine)      |
| <input type="checkbox"/> Drift Deposits (B3) (Riverine)         |
| <input type="checkbox"/> Drainage Patterns (B10)                |
| <input type="checkbox"/> Dry-Season Water Table (C2)            |
| <input type="checkbox"/> Crayfish Burrows (C8)                  |
| <input type="checkbox"/> Saturation Visible on Aerial Imag.(C9) |
| <input type="checkbox"/> Shallow Aquitard (D3)                  |
| <input checked="" type="checkbox"/> FAC-Neutral Test (D5)       |

**Field Observations:**

Surface Water Present?	Yes _____ No <u>X</u>	Depth (inches): _____
Water Table Present?	Yes _____ No <u>X</u>	Depth (inches): _____
Saturation Present?	Yes _____ No <u>X</u>	Depth (inches): _____

(includes capillary fringe)

**Wetland Hydrology Present?** Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

Sampling point meets criteria for wetland hydrology.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 8/8/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 4 Sampling Point: 12-W-201208080926  
 Investigators: Mike Perkins Nate Nichols Section, Township, Range S 22 T 4 R 2  
 Landform (hillslope, terrace, etc.): Terrace Local Relief (concave, convex, none): Concave Slope(%) 5  
 Subregion (LRR): LRR D Lat: 41.0673622859 Long: -112.057035152 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Ford loam, 0 to 1 percent slopes NWI Classification: PEMF

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No        (If No, explain in Remarks)  
 Are Vegetation       , Soil       , Hydrology       , significantly disturbed? Are "Normal Circumstances" present? Yes X No         
 Are Vegetation       , Soil       , Hydrology       , naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No <u>      </u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No <u>      </u> <b>Wetland ID:</b> <u>12-IW-25</u>
Hydric Soil Present? Yes <u>X</u> No <u>      </u>	
Wetland Hydrology Present? Yes <u>X</u> No <u>      </u>	

Remarks:  
 Sampling point is a wetland.

## VEGETATION— Use scientific names of plants.

	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
<u>Tree Stratum</u>			
<u>Shrub Stratum</u>			
<u>Herb Stratum</u> (Plot size: <u>30 Ft</u> )			
<u>Poa secunda</u>	<u>30</u>	<u>Y</u>	<u>FACU</u>
<u>Eleocharis palustris</u>	<u>25</u>	<u>Y</u>	<u>OBL</u>
<u>Distichlis spicata</u>	<u>20</u>	<u>Y</u>	<u>FAC</u>
<u>Lepidium latifolium</u>	<u>10</u>	<u>N</u>	<u>FAC</u>
<u>Schoenoplectus pungens</u>	<u>10</u>	<u>N</u>	<u>OBL</u>
<u>Rumex crispus</u>	<u>5</u>	<u>N</u>	<u>FAC</u>
	<u>100</u> =Total Cover		

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 2 (A)  
 Total Number of Dominant Species Across all Strata: 3 (B)  
 Percent of Dominant Species That are OBL, FACW, or FAC: 66.7% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>35</u>	x 1 = <u>35</u>
FACW species <u>0</u>	x 2 = <u>0</u>
FAC species <u>35</u>	x 3 = <u>105</u>
FACU species <u>30</u>	x 4 = <u>120</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>100</u> (A)	<u>260</u> (B)
Prevalence Index = B/A= <u>2.60</u>	

### Hydrophytic Vegetation Indicators:

       Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
       Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
       Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No       

% Bare Ground in Herb Stratum 0 % Cover of Biotic Crust       

Remarks: (Include photo numbers here or on a separate sheet.)  
 Vegetation is hydrophytic.



**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)**

Depth (inches)	Matrix			Redox Features				Texture	Remarks
	Color (moist)		%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 2	10YR	3.0/ 3	100					LOAM	
2 to 8	10YR	5.0/ 2	100					SILT LOAM	
8 to 18	10YR	6.0/ 1	75	10YR 7/1	25	D	M	SANDY CLAY LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |  |
|--|--|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)                |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)            |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)        |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)        |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input checked="" type="checkbox"/> Depleted Matrix (F3) |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)         |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7)      |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)          |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)               |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |  |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- |   |
|---|
| <input type="checkbox"/> 1 cm Muck (A9) (LRR C)     |
| <input type="checkbox"/> 2 cm Muck (A10) (LRR B)    |
| <input type="checkbox"/> Reduced Vertic (F18)       |
| <input type="checkbox"/> Red Parent Material (TF2)  |
| <input type="checkbox"/> Other (Explain in Remarks) |

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes X No \_\_\_\_\_

## Remarks:

Soil appears to meet criteria for hydric indicator F3.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                           | <input checked="" type="checkbox"/> Aquatic Fauna (B13)                |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- |   |
|---|
| <input type="checkbox"/> Water Marks (B1) (Riverine)            |
| <input type="checkbox"/> Sediment Deposits (B2) (Riverine)      |
| <input type="checkbox"/> Drift Deposits (B3) (Riverine)         |
| <input type="checkbox"/> Drainage Patterns (B10)                |
| <input type="checkbox"/> Dry-Season Water Table (C2)            |
| <input type="checkbox"/> Crayfish Burrows (C8)                  |
| <input type="checkbox"/> Saturation Visible on Aerial Imag.(C9) |
| <input type="checkbox"/> Shallow Aquitard (D3)                  |
| <input checked="" type="checkbox"/> FAC-Neutral Test (D5)       |

**Field Observations:**

Surface Water Present?	Yes _____ No <u>X</u>	Depth (inches): _____
Water Table Present?	Yes _____ No <u>X</u>	Depth (inches): _____
Saturation Present?	Yes _____ No <u>X</u>	Depth (inches): _____

(includes capillary fringe)

**Wetland Hydrology Present?** Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

Sampling point meets criteria for wetland hydrology.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 8/14/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 4 Sampling Point: 12-W-201208141338  
 Investigators: Trent Toler Section, Township, Range S 22 T 4 R 2  
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): None Slope(%) 1  
 Subregion (LRR): LRR D Lat: 41.0674953153 Long: -112.057158469 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Ford loam, 0 to 1 percent slopes NWI Classification: PEMF

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No        (If No, explain in Remarks)  
 Are Vegetation       , Soil       , Hydrology       , significantly disturbed? Are "Normal Circumstances" present? Yes        No X  
 Are Vegetation       , Soil       , Hydrology X, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No <u>      </u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No <u>      </u> Wetland ID: <u>12-IW-25</u>
Hydric Soil Present? Yes <u>X</u> No <u>      </u>	
Wetland Hydrology Present? Yes <u>X</u> No <u>      </u>	

Remarks:  
 Wet spot in pasture where water collects and drains South out of field. However, no defined channel or OHWM.

## VEGETATION— Use scientific names of plants.

	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
<u>Tree Stratum</u>			
<u>Shrub Stratum</u>			
<u>Herb Stratum</u> (Plot size: <u>30 Ft</u> )			
Juncus arcticus	95	Y	FACW
Lepidium latifolium	10	N	FAC
Distichlis spicata	3	N	FAC
	108	=Total Cover	
<u>Vine Stratum</u>			

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 1 (A)  
 Total Number of Dominant Species Across all Strata: 1 (B)  
 Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>95</u>	x 2 = <u>190</u>
FAC species <u>13</u>	x 3 = <u>39</u>
FACU species <u>0</u>	x 4 = <u>0</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>108</u> (A)	<u>229</u> (B)
Prevalence Index = B/A= <u>2.12</u>	

### Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
 Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No       

% Bare Ground in Herb Stratum 0 % Cover of Biotic Crust

Remarks: (Include photo numbers here or on a separate sheet.)

Juncus-dominated patch.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix			Redox Features				Texture	Remarks
	Color (moist)		%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 3	10YR	3.0/ 3	100					CLAY LOAM	Organic root mat
3 to 8	10YR	4.0/ 2	100					CLAY LOAM	
8 to 13	10YR	5.0/ 2	50	10YR 7/1	40	D	M	CLAY	Also: 10YR 4/1 10%
13 to 18	7.5YR	8.0/ 1	90	10YR 7/1	10	D	M	SILTY CLAY	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |  |
|--|--|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)                |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)            |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)        |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)        |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input checked="" type="checkbox"/> Depleted Matrix (F3) |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)         |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7)      |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)          |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)               |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |  |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- |   |
|---|
| <input type="checkbox"/> 1 cm Muck (A9) (LRR C)     |
| <input type="checkbox"/> 2 cm Muck (A10) (LRR B)    |
| <input type="checkbox"/> Reduced Vertic (F18)       |
| <input type="checkbox"/> Red Parent Material (TF2)  |
| <input type="checkbox"/> Other (Explain in Remarks) |

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes X No \_\_\_\_\_

## Remarks:

Soil is very close to meeting hydric indicator F3, but considering the layer starting at 13 in is very depleted and both the vegetation and hydrology indicate a wetland, this soil likely indicates hydric conditions.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- |   |
|---|
| <input type="checkbox"/> Water Marks (B1) (Riverine)            |
| <input type="checkbox"/> Sediment Deposits (B2) (Riverine)      |
| <input type="checkbox"/> Drift Deposits (B3) (Riverine)         |
| <input checked="" type="checkbox"/> Drainage Patterns (B10)     |
| <input type="checkbox"/> Dry-Season Water Table (C2)            |
| <input type="checkbox"/> Crayfish Burrows (C8)                  |
| <input type="checkbox"/> Saturation Visible on Aerial Imag.(C9) |
| <input type="checkbox"/> Shallow Aquitard (D3)                  |
| <input checked="" type="checkbox"/> FAC-Neutral Test (D5)       |

**Field Observations:**Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Water Table Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Saturation Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_

(includes capillary fringe)

**Wetland Hydrology Present?** Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

Sampling point meets criteria for wetland hydrology.

# WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: WDC MPAC-12-IW-19-1-OUT City/County: Davis County Sampling Date: 7/21/2016  
 Applicant/Owner: UDOT State: Utah Sampling Point: MPAC-12-IW-1  
 Investigator(s): MP/AC Section, Township, Range: 22 4N 2W  
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): concave Slope (%): 1%  
 Subregion (LRR): D Lat: 41.06816405 Long: -112.0615826 Datum: D WGS 1983  
 Soil Map Unit Name: Ford loam, 0 to 1 percent slopes NWI classification: PEM1/USA

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)  
 Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐  
 Are Vegetation ☐, Soil ☐, or Hydrology ☒ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Hydic Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		
Remarks: Swale area doesn't meet wetland criteria for soil or hydrology.		

## VEGETATION – Use scientific names of plants.

<b>Tree Stratum</b> (Plot size: _____) 1. _____ 2. _____ 3. _____ 4. _____ _____ = Total Cover <b>Sapling/Shrub Stratum</b> (Plot size: _____) 1. _____ 2. _____ 3. _____ 4. _____ 5. _____ _____ = Total Cover <b>Herb Stratum</b> (Plot size: <u>5 ft radius</u> ) 1. <u>Distichlis spicata</u> 40% Yes FAC 2. <u>Suaeda occidentalis</u> 40% Yes FACW 3. <u>Hordeum jubatum</u> 5% FAC 4. <u>Lepidium latifolium</u> 5% FAC 5. _____ 6. _____ 7. _____ 8. _____ _____ 90 = Total Cover <b>Woody Vine Stratum</b> (Plot size: _____) 1. _____ 2. _____ _____ = Total Cover % Bare Ground in Herb Stratum <u>10%</u> % Cover of Biotic Crust _____	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B) <b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____ <b>Hydrophytic Vegetation Indicators:</b> <input checked="" type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. <b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Remarks:	

# SOIL

Sampling Point: MPAC-12-#

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-6	10YR 5/5	100%					SiLoam	
6-12	7.5YR 5/3	95%	2.5YR 6/6	5%			SiLoam	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) (**LRR C**)
- ☐ 1 cm Muck (A9) (**LRR D**)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)

- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- ☐ 1 cm Muck (A9) (**LRR C**)
- ☐ 2 cm Muck (A10) (**LRR B**)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No ☒

Remarks:

Profile doesn't meet any hydric indicators

# HYDROLOGY

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1) (**Nonriverine**)
- ☐ Sediment Deposits (B2) (**Nonriverine**)
- ☐ Drift Deposits (B3) (**Nonriverine**)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)

- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) (**Riverine**)
- ☐ Sediment Deposits (B2) (**Riverine**)
- ☐ Drift Deposits (B3) (**Riverine**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☒ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present? Yes \_\_\_\_\_ No ☒ Depth (inches): \_\_\_\_\_

Water Table Present? Yes \_\_\_\_\_ No ☒ Depth (inches): \_\_\_\_\_

Saturation Present? Yes \_\_\_\_\_ No ☒ Depth (inches): \_\_\_\_\_  
(includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Dry.

# WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: WDC MPAC-12-IW-19-2-OUT City/County: Davis County Sampling Date: 7/21/16  
 Applicant/Owner: UDOT State: Utah Sampling Point: MPAC-12-IW-1  
 Investigator(s): MP/AC Section, Township, Range: 22 4N 2W  
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): concave Slope (%): 1%  
 Subregion (LRR): D Lat: 41.06883821 Long: -112.0604941 Datum: D WGS 1983  
 Soil Map Unit Name: Ford loam, shallow water table, 0 to 1 percent slopes NWI classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology ☒ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/>	
Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	
Remarks:  Dry time of year for seasonal hydrology, however, soils do not indicate hydric conditions.	

## VEGETATION – Use scientific names of plants.

<b>Tree Stratum</b> (Plot size: _____) 1. _____ 2. _____ 3. _____ 4. _____ _____ = Total Cover <b>Sapling/Shrub Stratum</b> (Plot size: _____) 1. _____ 2. _____ 3. _____ 4. _____ 5. _____ _____ = Total Cover <b>Herb Stratum</b> (Plot size: <u>5 ft. radius</u> ) 1. <u>Carex praeegracilis</u> 65% Yes FACW 2. <u>Distichlis spicata</u> 5% FAC 3. <u>Lepidium latifolium</u> 5% FAC 4. <u>Atriplex micrantha</u> 10% NL 5. <u>Dipsacus fullonum</u> 5% FAC 6. _____ 7. _____ 8. _____ _____ = Total Cover <b>Woody Vine Stratum</b> (Plot size: _____) 1. _____ 2. _____ _____ = Total Cover % Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B) <b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____ <b>Hydrophytic Vegetation Indicators:</b> <input checked="" type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. <b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No _____
Remarks:  Plot dominated by clustered field sedge.	



# SOIL

Sampling Point: MPAC-12-4

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-1	7.5YR 4/3	100%					O	
1-8	7.5YR 4/2	100%					SiClLoam	
8-16	7.5YR 6/4	100%					SiClLoam	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) (**LRR C**)
- ☐ 1 cm Muck (A9) (**LRR D**)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)

- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- ☐ 1 cm Muck (A9) (**LRR C**)
- ☐ 2 cm Muck (A10) (**LRR B**)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No ☒

Remarks:

No hydric indicators

# HYDROLOGY

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1) (**Nonriverine**)
- ☐ Sediment Deposits (B2) (**Nonriverine**)
- ☐ Drift Deposits (B3) (**Nonriverine**)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)

- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) (**Riverine**)
- ☐ Sediment Deposits (B2) (**Riverine**)
- ☐ Drift Deposits (B3) (**Riverine**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☒ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present? Yes \_\_\_\_\_ No ☒ Depth (inches): \_\_\_\_\_

Water Table Present? Yes \_\_\_\_\_ No ☒ Depth (inches): \_\_\_\_\_

Saturation Present? Yes \_\_\_\_\_ No ☒ Depth (inches): \_\_\_\_\_  
(includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Site is currently dry, but dry time of year for seasonal hydrology.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 5/9/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: \_\_\_\_\_ Sampling Point: 11-N-201205091230  
 Investigators: Ron Kass Ron Kass Section, Township, Range S 16 T 4 R 2  
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): None Slope(%) 0  
 Subregion (LRR): LRR D Lat: 41.0769403203 Long: -112.077791377 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Warm Springs fine sandy loam, saline, sodic, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> <b>Wetland ID:</b> _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	

Remarks:  
 Upland data point that contains hydrophytic vegetation but no hydric soils or wetland hydrology.

## VEGETATION— Use scientific names of plants.

	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
<u>Tree Stratum</u>			
<u>Shrub Stratum</u>			
<u>Herb Stratum</u> (Plot size: <u>30 Ft</u> )			
<u>Distichlis spicata</u>	<u>90</u>	<u>Y</u>	<u>FAC</u>
<u>Lepidium latifolium</u>	<u>15</u>	<u>N</u>	<u>FAC</u>
	<u>105</u> =Total Cover		
<u>Vine Stratum</u>			

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 1 (A)  
 Total Number of Dominant Species Across all Strata: 1 (B)  
 Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>0</u>	x 2 = <u>0</u>
FAC species <u>105</u>	x 3 = <u>315</u>
FACU species <u>0</u>	x 4 = <u>0</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>105</u> (A)	<u>315</u> (B)
Prevalence Index = B/A= <u>3.00</u>	

### Hydrophytic Vegetation Indicators:

   Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
   Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
   Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

% Bare Ground in Herb Stratum \_\_\_\_\_ % Cover of Biotic Crust \_\_\_\_\_

**Hydrophytic Vegetation Present?** Yes X No \_\_\_\_\_

Remarks: (Include photo numbers here or on a separate sheet.)  
 Salt grass meadow with some pepperwort qualifies as hydrophytic.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix			Redox Features				Texture	Remarks
	Color (moist)		%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 14	10YR	4.0 / 3	95					SANDY CLAY LOAM	
14 to 18	10YR	5.0 / 3	100					SANDY CLAY LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- ☐ Histosol (A1)  
☐ Histic Epipedon (A2)  
☐ Black Histic (A3)  
☐ Hydrogen Sulfide (A4)  
☐ Stratified Layers (A5) LRR C  
☐ 1 cm Muck (A9) LRR F D  
☐ Depleted Below Dark Surface (A11)  
☐ Thick Dark Surface (A12)  
☐ Sandy Mucky Mineral (S1)  
☐ Sandy Gleyed Matrix (S4)

- ☐ Sandy Redox (S5)  
☐ Stripped Matrix (S6)  
☐ Loamy Mucky Mineral (F1)  
☐ Loamy Gleyed Matrix (F2)  
☐ Depleted Matrix (F3)  
☐ Redox Dark Surface (F6)  
☐ Depleted Dark Surface (F7)  
☐ Redox Depressions (F8)  
☐ Vernal Pools (F9)

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)  
☐ 2 cm Muck (A10) (LRR B)  
☐ Reduced Vertic (F18)  
☐ Red Parent Material (TF2)  
☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☒ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): 14**Hydric Soil Present?** Yes \_\_\_\_\_ No X

Remarks:  
No hydric soil indicators observed.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)  
☐ High Water Table (A2)  
☐ Saturation (A3)  
☐ Water Marks (B1) (Nonriverine)  
☐ Sediment Deposits (B2) (Nonriverine)  
☐ Drift Deposits (B3) (Nonriverine)  
☐ Surface Soil Cracks (B6)  
☐ Inundation Visible on Aerial Imagery (B7)  
☐ Water-Stained Leaves (B9)  
☐ Salt Crust (B11)  
☐ Biotic Crust (B12)  
☐ Aquatic Fauna (B13)  
☐ Hydrogen Sulfide Odor (C1)  
☐ Oxidized Rhizospheres along Living Roots (C3)  
☐ Presence of Reduced Iron (C4)  
☐ Recent Iron Reduction in Tilled Soils (C6)  
☐ Thin Muck Surface (C7)  
☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)  
☐ Sediment Deposits (B2) (Riverine)  
☐ Drift Deposits (B3) (Riverine)  
☐ Drainage Patterns (B10)  
☐ Dry-Season Water Table (C2)  
☐ Crayfish Burrows (C8)  
☐ Saturation Visible on Aerial Imag.(C9)  
☐ Shallow Aquitard (D3)  
☐ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_  
Water Table Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_  
Saturation Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_  
(includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:  
No wetland hydrology observed.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 5/9/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 3 Sampling Point: 11-N-201205091350  
 Investigators: Ron Kass Section, Township, Range S 16 T 4 R 2  
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): None Slope(%) 1  
 Subregion (LRR): LRR D Lat: 41.077542944 Long: -112.077400407 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Warm Springs fine sandy loam, saline, sodic, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> <b>Wetland ID:</b> _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	

Remarks:  
 Sampling point not a wetland.

## VEGETATION— Use scientific names of plants.

Tree Stratum

Shrub Stratum

Herb Stratum (Plot size: 30 Ft )

	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
<u>Festuca pratensis</u>	<u>30</u>	<u>Y</u>	<u>FACU</u>
<u>Hordeum jubatum</u>	<u>30</u>	<u>Y</u>	<u>FAC</u>
<u>Carex praegracilis</u>	<u>20</u>	<u>Y</u>	<u>FACW</u>
<u>Juncus arcticus</u>	<u>10</u>	<u>N</u>	<u>FACW</u>
<u>Puccinellia nuttalliana</u>	<u>10</u>	<u>N</u>	<u>FACW</u>
	<u>100</u>	<u>=Total Cover</u>	

Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across all Strata: 3 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 66.7% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>40</u>	x 2 = <u>80</u>
FAC species <u>30</u>	x 3 = <u>90</u>
FACU species <u>30</u>	x 4 = <u>120</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>100</u> (A)	<u>290</u> (B)

Prevalence Index = B/A = 2.90

### Hydrophytic Vegetation Indicators:

   Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
   Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
   Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No \_\_\_\_\_

% Bare Ground in Herb Stratum 1 % Cover of Biotic Crust

Remarks: (Include photo numbers here or on a separate sheet.)  
 Vegetation is hydrophytic.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 10	10YR	4.0/ 3	100				SANDY LOAM	
10 to 18	10YR	5.0/ 3	100				SANDY CLAY LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- ☐ Histosol (A1)  
☐ Histic Epipedon (A2)  
☐ Black Histic (A3)  
☐ Hydrogen Sulfide (A4)  
☐ Stratified Layers (A5) LRR C  
☐ 1 cm Muck (A9) LRR F D  
☐ Depleted Below Dark Surface (A11)  
☐ Thick Dark Surface (A12)  
☐ Sandy Mucky Mineral (S1)  
☐ Sandy Gleyed Matrix (S4)

- ☐ Sandy Redox (S5)  
☐ Stripped Matrix (S6)  
☐ Loamy Mucky Mineral (F1)  
☐ Loamy Gleyed Matrix (F2)  
☐ Depleted Matrix (F3)  
☐ Redox Dark Surface (F6)  
☐ Depleted Dark Surface (F7)  
☐ Redox Depressions (F8)  
☐ Vernal Pools (F9)

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)  
☐ 2 cm Muck (A10) (LRR B)  
☐ Reduced Vertic (F18)  
☐ Red Parent Material (TF2)  
☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No X

## Remarks:

No hydric indicators observed in soil profile.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)  
☐ High Water Table (A2)  
☐ Saturation (A3)  
☐ Water Marks (B1) (Nonriverine)  
☐ Sediment Deposits (B2) (Nonriverine)  
☐ Drift Deposits (B3) (Nonriverine)  
☐ Surface Soil Cracks (B6)  
☐ Inundation Visible on Aerial Imagery (B7)  
☐ Water-Stained Leaves (B9)  
☐ Salt Crust (B11)  
☐ Biotic Crust (B12)  
☐ Aquatic Fauna (B13)  
☐ Hydrogen Sulfide Odor (C1)  
☐ Oxidized Rhizospheres along Living Roots (C3)  
☐ Presence of Reduced Iron (C4)  
☐ Recent Iron Reduction in Tilled Soils (C6)  
☐ Thin Muck Surface (C7)  
☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)  
☐ Sediment Deposits (B2) (Riverine)  
☐ Drift Deposits (B3) (Riverine)  
☐ Drainage Patterns (B10)  
☐ Dry-Season Water Table (C2)  
☐ Crayfish Burrows (C8)  
☐ Saturation Visible on Aerial Imag.(C9)  
☐ Shallow Aquitard (D3)  
☒ FAC-Neutral Test (D5)

**Field Observations:**Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Water Table Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Saturation Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_

(includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

Dry area lacks sufficient evidence for wetland hydrology.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 5/9/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 3 Sampling Point: 11-N-201205091404  
 Investigators: Ron Kass Ron Kass Section, Township, Range S 16 T 4 R 2  
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): None Slope(%) 0  
 Subregion (LRR): LRR D Lat: 41.0775022579 Long: -112.076453973 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Warm Springs fine sandy loam, saline, sodic, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes \_\_\_\_\_ No X  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology X, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> <b>Wetland ID:</b> _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	

Remarks:  
 Large pasture with hydrophytic vegetation but no wetland hydrology and no hydric soils. Irrigation confounding.

## VEGETATION— Use scientific names of plants.

Tree Stratum

Shrub Stratum

Herb Stratum (Plot size: 30 Ft )

	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
<u>Puccinellia nuttalliana</u>	<u>95</u>	<u>Y</u>	<u>FACW</u>
<u>Juncus arcticus</u>	<u>2</u>	<u>N</u>	<u>FACW</u>
	<u>97</u>	<u>=Total Cover</u>	

Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 1 (A)  
 Total Number of Dominant Species Across all Strata: 1 (B)  
 Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	<u>0</u>	x 1 =	<u>0</u>
FACW species	<u>97</u>	x 2 =	<u>194</u>
FAC species	<u>0</u>	x 3 =	<u>0</u>
FACU species	<u>0</u>	x 4 =	<u>0</u>
UPL species	<u>0</u>	x 5 =	<u>0</u>
Column Totals:	<u>97</u> (A)		<u>194</u> (B)
Prevalence Index = B/A= <u>2.00</u>			

### Hydrophytic Vegetation Indicators:

   Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
   Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
   Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No \_\_\_\_\_

% Bare Ground in Herb Stratum 3 % Cover of Biotic Crust

Remarks: (Include photo numbers here or on a separate sheet.)

Alkali grass dominated meadow.



**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)           |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)       |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)   |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)   |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input type="checkbox"/> Depleted Matrix (F3)       |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)     |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)          |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |   |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)
- ☐ 2 cm Muck (A10) (LRR B)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No X**Remarks:**

No hydric soil indicators were observed.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)
- ☐ Sediment Deposits (B2) (Riverine)
- ☐ Drift Deposits (B3) (Riverine)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Shallow Aquitard (D3)
- ☒ FAC-Neutral Test (D5)

**Field Observations:**Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Water Table Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Saturation Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_

(includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

**Remarks:**

Lacks sufficient evidence for wetland hydrology. Likely irrigated.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 5/8/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: \_\_\_\_\_ Sampling Point: 12-N-201205081521  
 Investigators: Donovan Gross Brian Nicholson Section, Township, Range S 21 T 4 R 2  
 Landform (hillslope, terrace, etc.): Basin Local Relief (concave, convex, none): Concave Slope(%) 0  
 Subregion (LRR): LRR D Lat: 41.0704871089 Long: -112.072004967 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Ford loam, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> <b>Wetland ID:</b> _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	

Remarks:  
 Upland data point with hydrophytic vegetation but no hydric soils or wetland hydrology.

## VEGETATION— Use scientific names of plants.

**Absolute % Cover** **Dominant Species** **Indicator Status**

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

Hordeum jubatum	25	Y	FAC
Polygonum ramosissimum	20	Y	FAC
Rumex crispus	10	N	FAC
	55	=Total Cover	

### Vine Stratum

## Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 2 (A)  
 Total Number of Dominant Species Across all Strata: 2 (B)  
 Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

## Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>0</u>	x 2 = <u>0</u>
FAC species <u>55</u>	x 3 = <u>165</u>
FACU species <u>0</u>	x 4 = <u>0</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>55</u> (A)	<u>165</u> (B)
Prevalence Index = B/A= <u>3.00</u>	

## Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
 Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No \_\_\_\_\_

% Bare Ground in Herb Stratum 25 % Cover of Biotic Crust

Remarks: (Include photo numbers here or on a separate sheet.)

Facultative plant community qualifies as hydrophytic.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)		%	Color (moist)	%	Type <sup>1</sup>		
0 to 5	10YR	2.0/ 1	100		0		CLAY LOAM	
5 to 14	7.5YR	6.0/ 3	100		0		SANDY LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)           |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)       |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)   |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)   |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input type="checkbox"/> Depleted Matrix (F3)       |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)     |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)          |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |   |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)  
☐ 2 cm Muck (A10) (LRR B)  
☐ Reduced Vertic (F18)  
☐ Red Parent Material (TF2)  
☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No X

Remarks:  
Soil failed to show hydric indicators.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)  
☐ Sediment Deposits (B2) (Riverine)  
☐ Drift Deposits (B3) (Riverine)  
☐ Drainage Patterns (B10)  
☐ Dry-Season Water Table (C2)  
☐ Crayfish Burrows (C8)  
☐ Saturation Visible on Aerial Imag.(C9)  
☐ Shallow Aquitard (D3)  
☐ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present?	Yes _____ No <u>X</u>	Depth (inches):	____
Water Table Present?	Yes _____ No <u>X</u>	Depth (inches):	____
Saturation Present?	Yes _____ No <u>X</u>	Depth (inches):	____

(includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No wetland hydrology.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 5/8/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 3 Sampling Point: 12-N-201205081554  
 Investigators: Trent Toler Mike Perkins Section, Township, Range S 21 T 4 R 2  
 Landform (hillslope, terrace, etc.): Basin Local Relief (concave, convex, none): Concave Slope(%) 0  
 Subregion (LRR): LRR D Lat: 41.073478976 Long: -112.072224414 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Ford loam, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation X, Soil X, Hydrology X, significantly disturbed? Are "Normal Circumstances" present? Yes \_\_\_\_\_ No X  
 Are Vegetation \_\_\_\_\_, Soil X, Hydrology \_\_\_\_\_, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland?	Yes _____ No <u>X</u>
Hydric Soil Present?	Yes _____ No <u>X</u>		
Wetland Hydrology Present?	Yes _____ No <u>X</u>		Wetland ID: _____

Remarks:  
 Sampling point not a wetland. Isolated depression with livestock water tank and spigot, area disturbed by grazing and trampling, and hydrology is likely supplied by leaking spigot.

## VEGETATION— Use scientific names of plants.

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
<u>Festuca pratensis</u>	<u>20</u>	<u>Y</u>	<u>FACU</u>
<u>Puccinellia nuttalliana</u>	<u>20</u>	<u>Y</u>	<u>FACW</u>
<u>Trifolium fragiferum</u>	<u>10</u>	<u>N</u>	<u>FACU</u>
<u>Atriplex micrantha</u>	<u>3</u>	<u>N</u>	<u>UPL</u>
<u>Juncus arcticus</u>	<u>3</u>	<u>N</u>	<u>FACW</u>
<u>Ranunculus sceleratus</u>	<u>2</u>	<u>N</u>	<u>OBL</u>
<u>Thinopyrum ponticum</u>	<u>2</u>	<u>N</u>	<u>UPL</u>
	<u>60</u> =Total Cover		

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species  
That are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant  
Species Across all Strata: 2 (B)

Percent of Dominant Species  
That are OBL, FACW, or FAC: 50.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>2</u>	x 1 = <u>2</u>
FACW species <u>23</u>	x 2 = <u>46</u>
FAC species <u>0</u>	x 3 = <u>0</u>
FACU species <u>30</u>	x 4 = <u>120</u>
UPL species <u>5</u>	x 5 = <u>25</u>
Column Totals: <u>60</u> (A)	<u>193</u> (B)

Prevalence Index = B/A= 3.22

### Hydrophytic Vegetation Indicators:

\_\_\_\_ Rapid Test for Hydrophytic Vegetation  
 \_\_\_\_ Dominance Test > 50%  
 \_\_\_\_ Prevalence Index ≤ 3.0  
 \_\_\_\_ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 \_\_\_\_ Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic  
Vegetation Present? Yes \_\_\_\_\_ No X

% Bare Ground in Herb Stratum 40 % Cover of Biotic Crust

Remarks: (Include photo numbers here or on a separate sheet.)  
 Fairly grazed & trampled; mixed plant community, but overall is not hydrophytic.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 9	10YR	3 / 2	100				CLAY LOAM	
9 to 14	10YR	4 / 2	100				SANDY CLAY LOAM	
14 to 19	10YR	4 / 3	100				SANDY CLAY LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- ☐ Histosol (A1)  
☐ Histic Epipedon (A2)  
☐ Black Histic (A3)  
☐ Hydrogen Sulfide (A4)  
☐ Stratified Layers (A5) LRR C  
☐ 1 cm Muck (A9) LRR F D  
☐ Depleted Below Dark Surface (A11)  
☐ Thick Dark Surface (A12)  
☐ Sandy Mucky Mineral (S1)  
☐ Sandy Gleyed Matrix (S4)

- ☐ Sandy Redox (S5)  
☐ Stripped Matrix (S6)  
☐ Loamy Mucky Mineral (F1)  
☐ Loamy Gleyed Matrix (F2)  
☐ Depleted Matrix (F3)  
☐ Redox Dark Surface (F6)  
☐ Depleted Dark Surface (F7)  
☐ Redox Depressions (F8)  
☐ Vernal Pools (F9)

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)  
☐ 2 cm Muck (A10) (LRR B)  
☐ Reduced Vertic (F18)  
☐ Red Parent Material (TF2)  
☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No X

## Remarks:

Soil does not meet any hydric indicator.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)  
☐ High Water Table (A2)  
☐ Saturation (A3)  
☐ Water Marks (B1) (Nonriverine)  
☐ Sediment Deposits (B2) (Nonriverine)  
☐ Drift Deposits (B3) (Nonriverine)  
☐ Surface Soil Cracks (B6)  
☐ Inundation Visible on Aerial Imagery (B7)  
☐ Water-Stained Leaves (B9)  
☐ Salt Crust (B11)  
☐ Biotic Crust (B12)  
☐ Aquatic Fauna (B13)  
☐ Hydrogen Sulfide Odor (C1)  
☐ Oxidized Rhizospheres along Living Roots (C3)  
☐ Presence of Reduced Iron (C4)  
☐ Recent Iron Reduction in Tilled Soils (C6)  
☐ Thin Muck Surface (C7)  
☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)  
☐ Sediment Deposits (B2) (Riverine)  
☐ Drift Deposits (B3) (Riverine)  
☐ Drainage Patterns (B10)  
☐ Dry-Season Water Table (C2)  
☐ Crayfish Burrows (C8)  
☐ Saturation Visible on Aerial Imag.(C9)  
☐ Shallow Aquitard (D3)  
☐ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present? Yes X No \_\_\_\_\_ Depth (inches): 2  
Water Table Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_  
Saturation Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_  
(includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

Standing water at site from overflowing livestock spigot, soil not saturated nor is the water table high. Surface hydrology is not natural. Vegetation and soils do not indicate wetland conditions.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 5/9/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: \_\_\_\_\_ Sampling Point: 12-N-201205091115  
 Investigators: Donovan Gross Section, Township, Range S 21 T 4 R 2  
 Landform (hillslope, terrace, etc.): Basin Local Relief (concave, convex, none): Concave Slope(%) 3  
 Subregion (LRR): LRR D Lat: 41.0713721643 Long: -112.072205287 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Ford loam, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> <b>Wetland ID:</b> _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	

Remarks:  
 Data point in lowest point of the field, but only hydrophytic vegetation present and no hydric soil or wetland hydrology.

## VEGETATION— Use scientific names of plants.

**Absolute % Cover** **Dominant Species** **Indicator Status**

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

Distichlis spicata	60	Y	FAC
Thinopyrum ponticum	2	N	UPL
Lepidium perfoliatum	1	N	FACU
Puccinellia nuttalliana	1	N	FACW
	64	=Total Cover	

### Vine Stratum

## Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across all Strata: 1 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

## Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>1</u>	x 2 = <u>2</u>
FAC species <u>60</u>	x 3 = <u>180</u>
FACU species <u>1</u>	x 4 = <u>4</u>
UPL species <u>2</u>	x 5 = <u>10</u>
Column Totals: <u>64</u> (A)	<u>196</u> (B)

Prevalence Index = B/A = 3.06

## Hydrophytic Vegetation Indicators:

\_\_\_\_ Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
 \_\_\_\_ Prevalence Index ≤ 3.0  
 \_\_\_\_ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 \_\_\_\_ Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No \_\_\_\_\_

% Bare Ground in Herb Stratum 25 % Cover of Biotic Crust \_\_\_\_\_

Remarks: (Include photo numbers here or on a separate sheet.)

Saltgrass meadow with a scattering of other species.



**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 8	10YR	4.0/ 3	100				SILTY CLAY LOAM	
8 to 16	10YR	5.0/ 3	100				SANDY CLAY LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- ☐ Histosol (A1)  
☐ Histic Epipedon (A2)  
☐ Black Histic (A3)  
☐ Hydrogen Sulfide (A4)  
☐ Stratified Layers (A5) LRR C  
☐ 1 cm Muck (A9) LRR F D  
☐ Depleted Below Dark Surface (A11)  
☐ Thick Dark Surface (A12)  
☐ Sandy Mucky Mineral (S1)  
☐ Sandy Gleyed Matrix (S4)

- ☐ Sandy Redox (S5)  
☐ Stripped Matrix (S6)  
☐ Loamy Mucky Mineral (F1)  
☐ Loamy Gleyed Matrix (F2)  
☐ Depleted Matrix (F3)  
☐ Redox Dark Surface (F6)  
☐ Depleted Dark Surface (F7)  
☐ Redox Depressions (F8)  
☐ Vernal Pools (F9)

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)  
☐ 2 cm Muck (A10) (LRR B)  
☐ Reduced Vertic (F18)  
☐ Red Parent Material (TF2)  
☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No X

Remarks:  
No hydric soil indicators observed.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)  
☐ High Water Table (A2)  
☐ Saturation (A3)  
☐ Water Marks (B1) (Nonriverine)  
☐ Sediment Deposits (B2) (Nonriverine)  
☐ Drift Deposits (B3) (Nonriverine)  
☐ Surface Soil Cracks (B6)  
☐ Inundation Visible on Aerial Imagery (B7)  
☐ Water-Stained Leaves (B9)  
☐ Salt Crust (B11)  
☐ Biotic Crust (B12)  
☐ Aquatic Fauna (B13)  
☐ Hydrogen Sulfide Odor (C1)  
☐ Oxidized Rhizospheres along Living Roots (C3)  
☐ Presence of Reduced Iron (C4)  
☐ Recent Iron Reduction in Tilled Soils (C6)  
☐ Thin Muck Surface (C7)  
☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)  
☐ Sediment Deposits (B2) (Riverine)  
☐ Drift Deposits (B3) (Riverine)  
☐ Drainage Patterns (B10)  
☐ Dry-Season Water Table (C2)  
☐ Crayfish Burrows (C8)  
☐ Saturation Visible on Aerial Imag.(C9)  
☐ Shallow Aquitard (D3)  
☐ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_  
Water Table Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_  
Saturation Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_  
(includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:  
No wetland hydrology indicators.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 5/9/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 4 Sampling Point: 12-N-201205091255  
 Investigators: Donovan Gross Section, Township, Range S 21 T 4 R 2  
 Landform (hillslope, terrace, etc.): Basin Local Relief (concave, convex, none): Convex Slope(%) 3  
 Subregion (LRR): LRR D Lat: 41.0711691299 Long: -112.071353396 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Ford loam, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> Wetland ID: _____
Hydric Soil Present?	Yes _____ No <u>X</u>	
Wetland Hydrology Present?	Yes _____ No <u>X</u>	

Remarks:  
 Upland point.

## VEGETATION— Use scientific names of plants.

**Absolute % Cover** **Dominant Species** **Indicator Status**

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

Thinopyrum ponticum	80	Y	UPL
Carex praegracilis	5	N	FACW
Distichlis spicata	5	N	FAC
	90	=Total Cover	

### Vine Stratum

## Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 0 (A)  
 Total Number of Dominant Species Across all Strata: 1 (B)  
 Percent of Dominant Species That are OBL, FACW, or FAC: 0.0% (A/B)

## Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	<u>0</u>	x 1 =	<u>0</u>
FACW species	<u>5</u>	x 2 =	<u>10</u>
FAC species	<u>5</u>	x 3 =	<u>15</u>
FACU species	<u>0</u>	x 4 =	<u>0</u>
UPL species	<u>80</u>	x 5 =	<u>400</u>
Column Totals:	<u>90</u> (A)		<u>425</u> (B)
Prevalence Index = B/A=		<u>4.72</u>	

## Hydrophytic Vegetation Indicators:

☐ Rapid Test for Hydrophytic Vegetation  
☐ Dominance Test > 50%  
☐ Prevalence Index ≤ 3.0  
☐ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
☐ Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes \_\_\_\_\_ No X

% Bare Ground in Herb Stratum 0 % Cover of Biotic Crust \_\_\_\_\_

Remarks: (Include photo numbers here or on a separate sheet.)  
 Wheatgrass dominated community.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix			Redox Features				Texture	Remarks
	Color (moist)		%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 14	10YR	3.0/ 3	95	10YR 4/4	2	C	PL	CLAY LOAM	
14 to 18	10YR	5.0/ 3	95		20	C	PL	CLAY LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)           |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)       |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)   |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)   |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input type="checkbox"/> Depleted Matrix (F3)       |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)     |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)          |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |   |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)  
☐ 2 cm Muck (A10) (LRR B)  
☐ Reduced Vertic (F18)  
☐ Red Parent Material (TF2)  
☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**Type: calcicDepth (inches): 18**Hydric Soil Present?** Yes        No **X**

## Remarks:

Soil does not meet any hydric indicator.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)  
☐ Sediment Deposits (B2) (Riverine)  
☐ Drift Deposits (B3) (Riverine)  
☐ Drainage Patterns (B10)  
☐ Dry-Season Water Table (C2)  
☐ Crayfish Burrows (C8)  
☐ Saturation Visible on Aerial Imag.(C9)  
☐ Shallow Aquitard (D3)  
☐ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present?	Yes <u>      </u>	No <u><b>X</b></u>	Depth (inches):	<u>      </u>
Water Table Present?	Yes <u>      </u>	No <u><b>X</b></u>	Depth (inches):	<u>      </u>
Saturation Present?	Yes <u>      </u>	No <u><b>X</b></u>	Depth (inches):	<u>      </u>

(includes capillary fringe)

**Wetland Hydrology Present?** Yes        No **X**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

No hydrology indicators observed.

Project Site:	West Davis Corridor		City/County:	Davis County		Sampling Date:	5/9/2012	
Applicant/Owner:	UDOT		State:	UT		Map/Sheet:	3	
Investigators:	Ron Kass		Paul Dawson		Section, Township, Range	S 16 T 4 R 2		
Landform (hillslope, terrace, etc.):	Flat		Local Relief (concave, convex, none):	None		Slope(%)	1	
Subregion (LRR):	LRR D		Lat:	41.0775413609		Long:	-112.075357634	
						Datum:	GCS_WGS_1984	
Soil Map Unit Name:	Warm Springs fine sandy loam, saline, sodic, 0 to 1 percent slopes					NWI Classification:		
Are climatic / hydrologic conditions on the site typical for this time of year?			Yes	X	No	(If No, explain in Remarks)		
Are Vegetation				Soil		Hydrology		
significantly disturbed?					Are "Normal Circumstances" present?		Yes	X
					No			
Are Vegetation				Soil		Hydrology		
naturally problematic?					(If needed, explain any answers in Remarks.)			

Hydrophytic Vegetation Present?	Yes	X	No		Is the Sampled Area within a Wetland?  Wetland ID: _____	Yes		No	X	
Hydic Soil Present?	Yes		No	X						
Wetland Hydrology Present?	Yes		No	X						
Remarks: Sampling point not a wetland.										

## Arid West – Version 2.0

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix			Redox Features				Texture	Remarks
	Color (moist)		%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 10	10YR	4.0 / 2	100					SILTY CLAY LOAM	
10 to 18	5YR	5.0 / 4	100					SILTY CLAY LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- ☐ Histosol (A1)  
☐ Histic Epipedon (A2)  
☐ Black Histic (A3)  
☐ Hydrogen Sulfide (A4)  
☐ Stratified Layers (A5) LRR C  
☐ 1 cm Muck (A9) LRR F D  
☐ Depleted Below Dark Surface (A11)  
☐ Thick Dark Surface (A12)  
☐ Sandy Mucky Mineral (S1)  
☐ Sandy Gleyed Matrix (S4)

- ☐ Sandy Redox (S5)  
☐ Stripped Matrix (S6)  
☐ Loamy Mucky Mineral (F1)  
☐ Loamy Gleyed Matrix (F2)  
☐ Depleted Matrix (F3)  
☐ Redox Dark Surface (F6)  
☐ Depleted Dark Surface (F7)  
☐ Redox Depressions (F8)  
☐ Vernal Pools (F9)

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)  
☐ 2 cm Muck (A10) (LRR B)  
☐ Reduced Vertic (F18)  
☐ Red Parent Material (TF2)  
☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No X

## Remarks:

Soil does not meet any hydric indicator.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)  
☐ High Water Table (A2)  
☐ Saturation (A3)  
☐ Water Marks (B1) (Nonriverine)  
☐ Sediment Deposits (B2) (Nonriverine)  
☐ Drift Deposits (B3) (Nonriverine)  
☐ Surface Soil Cracks (B6)  
☐ Inundation Visible on Aerial Imagery (B7)  
☐ Water-Stained Leaves (B9)  
☐ Salt Crust (B11)  
☐ Biotic Crust (B12)  
☐ Aquatic Fauna (B13)  
☐ Hydrogen Sulfide Odor (C1)  
☐ Oxidized Rhizospheres along Living Roots (C3)  
☐ Presence of Reduced Iron (C4)  
☐ Recent Iron Reduction in Tilled Soils (C6)  
☐ Thin Muck Surface (C7)  
☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)  
☐ Sediment Deposits (B2) (Riverine)  
☐ Drift Deposits (B3) (Riverine)  
☐ Drainage Patterns (B10)  
☐ Dry-Season Water Table (C2)  
☐ Crayfish Burrows (C8)  
☐ Saturation Visible on Aerial Imag.(C9)  
☐ Shallow Aquitard (D3)  
☒ FAC-Neutral Test (D5)

**Field Observations:**Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Water Table Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Saturation Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_

(includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

Dry area lacks sufficient evidence for wetland hydrology.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 5/9/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 3 Sampling Point: 12-N-201205091332  
 Investigators: Donovan Gross Section, Township, Range S 21 T 4 R 2  
 Landform (hillslope, terrace, etc.): Basin Local Relief (concave, convex, none): Concave Slope(%) 2  
 Subregion (LRR): LRR D Lat: 41.0717413787 Long: -112.070544862 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Ford loam, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> <b>Wetland ID:</b> _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	

Remarks:  
 Photos mislabeled as sheet 11 (12 correct). Mesic site does not meet criteria for wetland.

## VEGETATION— Use scientific names of plants.

**Absolute % Cover** **Dominant Species** **Indicator Status**

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

Carex praegracilis	20	Y	FACW
Distichlis spicata	20	Y	FAC
Hordeum jubatum	20	Y	FAC
Trifolium repens	20	Y	FACU
Juncus arcticus	15	N	FACW
	95	=Total Cover	

### Vine Stratum

## Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 3 (A)  
 Total Number of Dominant Species Across all Strata: 4 (B)  
 Percent of Dominant Species That are OBL, FACW, or FAC: 75.0% (A/B)

## Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>35</u>	x 2 = <u>70</u>
FAC species <u>40</u>	x 3 = <u>120</u>
FACU species <u>20</u>	x 4 = <u>80</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>95</u> (A)	<u>270</u> (B)
Prevalence Index = B/A= <u>2.84</u>	

## Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
 Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No \_\_\_\_\_

% Bare Ground in Herb Stratum 5 % Cover of Biotic Crust

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation is hydrophytic.



**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 10	10YR	3.0/ 3	100				CLAY LOAM	
10 to 18	5YR	5.0/ 4	100				CLAY LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)           |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)       |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)   |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)   |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input type="checkbox"/> Depleted Matrix (F3)       |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)     |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)          |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |   |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- |   |
|---|
| <input type="checkbox"/> 1 cm Muck (A9) (LRR C)     |
| <input type="checkbox"/> 2 cm Muck (A10) (LRR B)    |
| <input type="checkbox"/> Reduced Vertic (F18)       |
| <input type="checkbox"/> Red Parent Material (TF2)  |
| <input type="checkbox"/> Other (Explain in Remarks) |

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No X

## Remarks:

Soil does not meet any hydric indicator.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- |   |
|---|
| <input type="checkbox"/> Water Marks (B1) (Riverine)            |
| <input type="checkbox"/> Sediment Deposits (B2) (Riverine)      |
| <input type="checkbox"/> Drift Deposits (B3) (Riverine)         |
| <input type="checkbox"/> Drainage Patterns (B10)                |
| <input type="checkbox"/> Dry-Season Water Table (C2)            |
| <input type="checkbox"/> Crayfish Burrows (C8)                  |
| <input type="checkbox"/> Saturation Visible on Aerial Imag.(C9) |
| <input type="checkbox"/> Shallow Aquitard (D3)                  |
| <input checked="" type="checkbox"/> FAC-Neutral Test (D5)       |

**Field Observations:**

Surface Water Present?	Yes _____ No <u>X</u>	Depth (inches):	____
Water Table Present?	Yes _____ No <u>X</u>	Depth (inches):	____
Saturation Present?	Yes _____ No <u>X</u>	Depth (inches):	____

(includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

Dry area lacks sufficient evidence for wetland hydrology.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 5/9/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 3 Sampling Point: 12-N-201205091438  
 Investigators: Ron Kass Ron Kass Section, Township, Range S 16 T 4 R 2  
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): Convex Slope(%) 1  
 Subregion (LRR): LRR D Lat: 41.0753305571 Long: -112.074693766 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Warm Springs fine sandy loam, saline, sodic, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____ Hydric Soil Present? Yes _____ No <u>X</u> Wetland Hydrology Present? Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>X</u> Wetland ID: _____
---	--

Remarks:  
 Upland pasture with hydrophytic vegetation but no wetland hydrology or soil.

### VEGETATION— Use scientific names of plants.

#### Tree Stratum

#### Shrub Stratum

#### Herb Stratum (Plot size: 30 Ft )

	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
Carex praegracilis	30	Y	FACW
Puccinellia nuttalliana	20	Y	FACW
Distichlis spicata	15	Y	FAC
Hordeum jubatum	10	N	FAC
	75	=Total Cover	

#### Vine Stratum

#### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across all Strata: 3 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

#### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>50</u>	x 2 = <u>100</u>
FAC species <u>25</u>	x 3 = <u>75</u>
FACU species <u>0</u>	x 4 = <u>0</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>75</u> (A)	<u>175</u> (B)

Prevalence Index = B/A = 2.33

#### Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
 Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No \_\_\_\_\_

% Bare Ground in Herb Stratum 25 % Cover of Biotic Crust

Remarks: (Include photo numbers here or on a separate sheet.)

Plant community is a wet meadow hydrophytic community.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 8	10YR	4.0 / 2	100				SANDY LOAM	
8 to 18	5YR	4.0 / 3	100				SILT LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)           |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)       |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)   |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)   |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input type="checkbox"/> Depleted Matrix (F3)       |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)     |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)          |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |   |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- |   |
|---|
| <input type="checkbox"/> 1 cm Muck (A9) (LRR C)     |
| <input type="checkbox"/> 2 cm Muck (A10) (LRR B)    |
| <input type="checkbox"/> Reduced Vertic (F18)       |
| <input type="checkbox"/> Red Parent Material (TF2)  |
| <input type="checkbox"/> Other (Explain in Remarks) |

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No X

## Remarks:

No hydric soil indicators were observed.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- |   |
|---|
| <input type="checkbox"/> Water Marks (B1) (Riverine)            |
| <input type="checkbox"/> Sediment Deposits (B2) (Riverine)      |
| <input type="checkbox"/> Drift Deposits (B3) (Riverine)         |
| <input type="checkbox"/> Drainage Patterns (B10)                |
| <input type="checkbox"/> Dry-Season Water Table (C2)            |
| <input type="checkbox"/> Crayfish Burrows (C8)                  |
| <input type="checkbox"/> Saturation Visible on Aerial Imag.(C9) |
| <input type="checkbox"/> Shallow Aquitard (D3)                  |
| <input checked="" type="checkbox"/> FAC-Neutral Test (D5)       |

**Field Observations:**

Surface Water Present?	Yes _____ No <u>X</u>	Depth (inches): _____
Water Table Present?	Yes _____ No <u>X</u>	Depth (inches): _____
Saturation Present?	Yes _____ No <u>X</u>	Depth (inches): _____

(includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

Dry area lacks sufficient evidence for wetland hydrology.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 5/10/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 3 Sampling Point: 12-N-201205100812  
 Investigators: Ron Kass Paul Dawson Section, Township, Range S 16 T 4 R 2  
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): None Slope(%) 0  
 Subregion (LRR): LRR D Lat: 41.0763132574 Long: -112.072321305 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Warm Springs fine sandy loam, saline, sodic, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> <b>Wetland ID:</b> _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	

Remarks:  
 Data point with hydrophytic vegetation, but no hydric soils or wetland hydrology.

## VEGETATION— Use scientific names of plants.

**Absolute % Cover** **Dominant Species** **Indicator Status**

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

Carex praegracilis	95	Y	FACW
Juncus arcticus	2	N	FACW
Schoenoplectus pungens	2	N	OBL
Hordeum jubatum	1	N	FAC
	100	=Total Cover	

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across all Strata: 1 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>2</u>	x 1 = <u>2</u>
FACW species <u>97</u>	x 2 = <u>194</u>
FAC species <u>1</u>	x 3 = <u>3</u>
FACU species <u>0</u>	x 4 = <u>0</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>100</u> (A)	<u>199</u> (B)

Prevalence Index = B/A = 1.99

### Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
 Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No \_\_\_\_\_

% Bare Ground in Herb Stratum \_\_\_\_\_ % Cover of Biotic Crust \_\_\_\_\_

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation is hydrophytic.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 10	10YR	4.0 / 2	100				SANDY CLAY LOAM	
10 to 18	10YR	4.0 / 2	100				SANDY LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- ☐ Histosol (A1)  
☐ Histic Epipedon (A2)  
☐ Black Histic (A3)  
☐ Hydrogen Sulfide (A4)  
☐ Stratified Layers (A5) LRR C  
☐ 1 cm Muck (A9) LRR F D  
☐ Depleted Below Dark Surface (A11)  
☐ Thick Dark Surface (A12)  
☐ Sandy Mucky Mineral (S1)  
☐ Sandy Gleyed Matrix (S4)

- ☐ Sandy Redox (S5)  
☐ Stripped Matrix (S6)  
☐ Loamy Mucky Mineral (F1)  
☐ Loamy Gleyed Matrix (F2)  
☐ Depleted Matrix (F3)  
☐ Redox Dark Surface (F6)  
☐ Depleted Dark Surface (F7)  
☐ Redox Depressions (F8)  
☐ Vernal Pools (F9)

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)  
☐ 2 cm Muck (A10) (LRR B)  
☐ Reduced Vertic (F18)  
☐ Red Parent Material (TF2)  
☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No X

## Remarks:

No hydric soil indicators were observed.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)  
☐ High Water Table (A2)  
☐ Saturation (A3)  
☐ Water Marks (B1) (Nonriverine)  
☐ Sediment Deposits (B2) (Nonriverine)  
☐ Drift Deposits (B3) (Nonriverine)  
☐ Surface Soil Cracks (B6)  
☐ Inundation Visible on Aerial Imagery (B7)  
☐ Water-Stained Leaves (B9)  
☐ Salt Crust (B11)  
☐ Biotic Crust (B12)  
☐ Aquatic Fauna (B13)  
☐ Hydrogen Sulfide Odor (C1)  
☐ Oxidized Rhizospheres along Living Roots (C3)  
☐ Presence of Reduced Iron (C4)  
☐ Recent Iron Reduction in Tilled Soils (C6)  
☐ Thin Muck Surface (C7)  
☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)  
☐ Sediment Deposits (B2) (Riverine)  
☐ Drift Deposits (B3) (Riverine)  
☐ Drainage Patterns (B10)  
☐ Dry-Season Water Table (C2)  
☐ Crayfish Burrows (C8)  
☐ Saturation Visible on Aerial Imag.(C9)  
☐ Shallow Aquitard (D3)  
☒ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_  
Water Table Present? Yes X No \_\_\_\_\_ Depth (inches): 18  
Saturation Present? Yes X No \_\_\_\_\_ Depth (inches): 16  
(includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

Water table and saturation too deep to be indicators of wetland hydrology.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 5/10/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 4 Sampling Point: 12-N-201205100939  
 Investigators: Mike Perkins Brian Nicholson Section, Township, Range S 21 T 4 R 2  
 Landform (hillslope, terrace, etc.): Basin Local Relief (concave, convex, none): Concave Slope(%) 20  
 Subregion (LRR): LRR D Lat: 41.0706251215 Long: -112.070608437 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Ford loam, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> Wetland ID: _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks:  
 Soils failed. Appears to be influenced by irrigation.

## VEGETATION— Use scientific names of plants.

**Absolute % Cover** **Dominant Species** **Indicator Status**

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

Trifolium fragiferum	50	Y	FACU
Poa pratensis	35	Y	FAC
Carex praegracilis	30	Y	FACW
Juncus arcticus	10	N	FACW
	125	=Total Cover	

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across all Strata: 3 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 66.7% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>40</u>	x 2 = <u>80</u>
FAC species <u>35</u>	x 3 = <u>105</u>
FACU species <u>50</u>	x 4 = <u>200</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>125</u> (A)	<u>385</u> (B)

Prevalence Index = B/A= 3.08

### Hydrophytic Vegetation Indicators:

\_\_\_\_ Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
 \_\_\_\_ Prevalence Index ≤ 3.0  
 \_\_\_\_ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 \_\_\_\_ Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No \_\_\_\_\_

% Bare Ground in Herb Stratum 5 % Cover of Biotic Crust \_\_\_\_\_

Remarks: (Include photo numbers here or on a separate sheet.)  
 Vegetation is hydrophytic.



**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)**

Depth (inches)	Matrix			Redox Features				Texture	Remarks
	Color (moist)		%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 9	10YR	3.0 / 2	100					SANDY LOAM	
9 to 12	10YR	4.0 / 3	100					SANDY CLAY LOAM	
12 to 16	10YR	4.0 / 3	95	7.5YR 4/6	2	C	M	SANDY CLAY LOAM	
16 to 24	10YR	5.0 / 3	95	7.5 YR 4/3	2	C	M	SANDY CLAY LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- ☐ Histosol (A1)  
☐ Histic Epipedon (A2)  
☐ Black Histic (A3)  
☐ Hydrogen Sulfide (A4)  
☐ Stratified Layers (A5) LRR C  
☐ 1 cm Muck (A9) LRR F D  
☐ Depleted Below Dark Surface (A11)  
☐ Thick Dark Surface (A12)  
☐ Sandy Mucky Mineral (S1)  
☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)  
☐ Stripped Matrix (S6)  
☐ Loamy Mucky Mineral (F1)  
☐ Loamy Gleyed Matrix (F2)  
☐ Depleted Matrix (F3)  
☐ Redox Dark Surface (F6)  
☐ Depleted Dark Surface (F7)  
☐ Redox Depressions (F8)  
☐ Vernal Pools (F9)

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)  
☐ 2 cm Muck (A10) (LRR B)  
☐ Reduced Vertic (F18)  
☐ Red Parent Material (TF2)  
☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No X

## Remarks:

Soil does not meet any hydric indicator.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)  
☐ High Water Table (A2)  
☒ Saturation (A3)  
☐ Water Marks (B1) (Nonriverine)  
☐ Sediment Deposits (B2) (Nonriverine)  
☐ Drift Deposits (B3) (Nonriverine)  
☐ Surface Soil Cracks (B6)  
☐ Inundation Visible on Aerial Imagery (B7)  
☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)  
☐ Biotic Crust (B12)  
☐ Aquatic Fauna (B13)  
☐ Hydrogen Sulfide Odor (C1)  
☐ Oxidized Rhizospheres along Living Roots (C3)  
☐ Presence of Reduced Iron (C4)  
☐ Recent Iron Reduction in Tilled Soils (C6)  
☐ Thin Muck Surface (C7)  
☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)  
☐ Sediment Deposits (B2) (Riverine)  
☐ Drift Deposits (B3) (Riverine)  
☐ Drainage Patterns (B10)  
☐ Dry-Season Water Table (C2)  
☐ Crayfish Burrows (C8)  
☐ Saturation Visible on Aerial Imag.(C9)  
☐ Shallow Aquitard (D3)  
☒ FAC-Neutral Test (D5)

**Field Observations:**Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Water Table Present? Yes \_\_\_\_\_ No X Depth (inches): 19Saturation Present? Yes X No \_\_\_\_\_ Depth (inches): 8

(includes capillary fringe)

**Wetland Hydrology Present?** Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

Wetland hydrology present.

Project Site:	West Davis Corridor		City/County:	Davis County		Sampling Date:	5/10/2012	
Applicant/Owner:	UDOT		State:	UT		Map/Sheet:	4	
Investigators:	Mike Perkins		Brian Nicholson		Section, Township, Range	S 21 T 4 R 2		
Landform (hillslope, terrace, etc.):	Basin		Local Relief (concave, convex, none):		Concave		Slope(%) 2	
Subregion (LRR):	LRR D		Lat:	41.0707034599		Long:	-112.070561347	
						Datum:	GCS_WGS_1984	
Soil Map Unit Name:	Ford loam, 0 to 1 percent slopes				NWI Classification:			
Are climatic / hydrologic conditions on the site typical for this time of year?				Yes	X	No	(If No, explain in Remarks)	
Are Vegetation _____, Soil _____, Hydrology _____, significantly disturbed?				Are "Normal Circumstances" present? Yes X No _____				
Are Vegetation _____, Soil _____, Hydrology _____, naturally problematic?				(If needed, explain any answers in Remarks.)				

Hydrophytic Vegetation Present?	Yes	<u>X</u>	No	
Hydric Soil Present?	Yes		No	<u>X</u>
Wetland Hydrology Present?	Yes	<u>X</u>	No	

**Is the Sampled Area within a Wetland?**

Yes \_\_\_\_\_ No X

**Wetland ID:** \_\_\_\_\_

Arid West – Version 2.0

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 5	10YR	3.0 / 2					SANDY LOAM	
5 to 12	10YR	4.0 / 3	7.5YR 4/6	2	C	M	SANDY CLAY LOAM	
12 to 14	10YR	5.0 / 3					SANDY CLAY LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)           |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)       |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)   |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)   |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input type="checkbox"/> Depleted Matrix (F3)       |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)     |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)          |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |   |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)  
☐ 2 cm Muck (A10) (LRR B)  
☐ Reduced Vertic (F18)  
☐ Red Parent Material (TF2)  
☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No X

## Remarks:

Soil does not meet any hydric indicator though a few redox concentrations were found.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input checked="" type="checkbox"/> High Water Table (A2)          | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input checked="" type="checkbox"/> Saturation (A3)                | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)  
☐ Sediment Deposits (B2) (Riverine)  
☐ Drift Deposits (B3) (Riverine)  
☐ Drainage Patterns (B10)  
☐ Dry-Season Water Table (C2)  
☐ Crayfish Burrows (C8)  
☐ Saturation Visible on Aerial Imag.(C9)  
☐ Shallow Aquitard (D3)  
☒ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present?	Yes _____	No <u>X</u>	Depth (inches):	_____
Water Table Present?	Yes <u>X</u>	No _____	Depth (inches):	11
Saturation Present?	Yes <u>X</u>	No _____	Depth (inches):	3

(includes capillary fringe)

**Wetland Hydrology Present?** Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

Wetland hydrology present.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 5/10/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: \_\_\_\_\_ Sampling Point: 12-N-201205101107  
 Investigators: Mike Perkins Brian Nicholson Section, Township, Range S 21 T 4 R 2  
 Landform (hillslope, terrace, etc.): Basin Local Relief (concave, convex, none): Convex Slope(%) 2  
 Subregion (LRR): LRR D Lat: 41.0689141643 Long: -112.070385174 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Ford loam, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil X, Hydrology \_\_\_\_\_, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>X</u>
Hydric Soil Present?	Yes _____ No <u>X</u>	
Wetland Hydrology Present?	Yes _____ No <u>X</u>	
Wetland ID: _____		

Remarks:  
 Upland point.

## VEGETATION— Use scientific names of plants.

**Absolute % Cover** **Dominant Species** **Indicator Status**

### Tree Stratum

### Shrub Stratum (Plot size: 30 Ft )

Sarcobatus vermiculatus

30 Y FAC

30 =Total Cover

### Herb Stratum (Plot size: 30 Ft )

Distichlis spicata

40 Y FAC

Melilotus officinalis

25 Y FACU

Thinopyrum ponticum

25 Y UPL

90 =Total Cover

### Vine Stratum

## Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across all Strata: 4 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 50.0% (A/B)

## Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>0</u>	x 2 = <u>0</u>
FAC species <u>70</u>	x 3 = <u>210</u>
FACU species <u>25</u>	x 4 = <u>100</u>
UPL species <u>25</u>	x 5 = <u>125</u>
Column Totals: <u>120</u> (A)	<u>435</u> (B)

Prevalence Index = B/A= 3.63

## Hydrophytic Vegetation Indicators:

\_\_\_\_ Rapid Test for Hydrophytic Vegetation  
 \_\_\_\_ Dominance Test > 50%  
 \_\_\_\_ Prevalence Index ≤ 3.0  
 \_\_\_\_ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 \_\_\_\_ Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes \_\_\_\_\_ No X

% Bare Ground in Herb Stratum 5 % Cover of Biotic Crust

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation is not hydrophytic.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 10	10YR	4.0 / 3	100				SANDY CLAY LOAM	
10 to 18	10YR	5.0 / 3	100				SANDY LOAM	
18 to 22	10YR	5.0 / 4	100				CLAY LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- ☐ Histosol (A1)  
☐ Histic Epipedon (A2)  
☐ Black Histic (A3)  
☐ Hydrogen Sulfide (A4)  
☐ Stratified Layers (A5) LRR C  
☐ 1 cm Muck (A9) LRR F D  
☐ Depleted Below Dark Surface (A11)  
☐ Thick Dark Surface (A12)  
☐ Sandy Mucky Mineral (S1)  
☐ Sandy Gleyed Matrix (S4)

- ☐ Sandy Redox (S5)  
☐ Stripped Matrix (S6)  
☐ Loamy Mucky Mineral (F1)  
☐ Loamy Gleyed Matrix (F2)  
☐ Depleted Matrix (F3)  
☐ Redox Dark Surface (F6)  
☐ Depleted Dark Surface (F7)  
☐ Redox Depressions (F8)  
☐ Vernal Pools (F9)

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)  
☐ 2 cm Muck (A10) (LRR B)  
☐ Reduced Vertic (F18)  
☐ Red Parent Material (TF2)  
☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No X

## Remarks:

Soil does not meet any hydric indicator.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)  
☐ High Water Table (A2)  
☐ Saturation (A3)  
☐ Water Marks (B1) (Nonriverine)  
☐ Sediment Deposits (B2) (Nonriverine)  
☐ Drift Deposits (B3) (Nonriverine)  
☐ Surface Soil Cracks (B6)  
☐ Inundation Visible on Aerial Imagery (B7)  
☐ Water-Stained Leaves (B9)  
☐ Salt Crust (B11)  
☐ Biotic Crust (B12)  
☐ Aquatic Fauna (B13)  
☐ Hydrogen Sulfide Odor (C1)  
☐ Oxidized Rhizospheres along Living Roots (C3)  
☐ Presence of Reduced Iron (C4)  
☐ Recent Iron Reduction in Tilled Soils (C6)  
☐ Thin Muck Surface (C7)  
☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)  
☐ Sediment Deposits (B2) (Riverine)  
☐ Drift Deposits (B3) (Riverine)  
☐ Drainage Patterns (B10)  
☐ Dry-Season Water Table (C2)  
☐ Crayfish Burrows (C8)  
☐ Saturation Visible on Aerial Imag.(C9)  
☐ Shallow Aquitard (D3)  
☐ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_  
Water Table Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_  
Saturation Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_  
(includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

No hydrology indicators observed.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 7/30/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 3 Sampling Point: 12-N-201207301115  
 Investigators: Mike Perkins Nate Nichols Section, Township, Range S 21 T 4 R 2  
 Landform (hillslope, terrace, etc.): Basin Local Relief (concave, convex, none): Concave Slope(%) 5  
 Subregion (LRR): LRR D Lat: 41.0735152008 Long: -112.069270938 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Ford loam, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> Wetland ID: _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks:  
 Sampling point not a wetland.

## VEGETATION— Use scientific names of plants.

	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
<u>Tree Stratum</u>			
<u>Shrub Stratum</u>			
<u>Herb Stratum</u> (Plot size: <u>30 Ft</u> )			
Carex nebrascensis	40	Y	OBL
Distichlis spicata	20	Y	FAC
Carex praegracilis	10	N	FACW
Festuca pratensis	10	N	FACU
Hordeum jubatum	10	N	FAC
Juncus arcticus	10	N	FACW
	100	=Total Cover	

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 2 (A)  
 Total Number of Dominant Species Across all Strata: 2 (B)  
 Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>40</u>	x 1 = <u>40</u>
FACW species <u>20</u>	x 2 = <u>40</u>
FAC species <u>30</u>	x 3 = <u>90</u>
FACU species <u>10</u>	x 4 = <u>40</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>100</u> (A)	<u>210</u> (B)
Prevalence Index = B/A= <u>2.10</u>	

### Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
 Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No \_\_\_\_\_

% Bare Ground in Herb Stratum 0 % Cover of Biotic Crust \_\_\_\_\_

Remarks: (Include photo numbers here or on a separate sheet.)  
 Vegetation is hydrophytic.



Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix			Redox Features				Texture	Remarks
	Color (moist)		%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 2	10YR	2.0/ 2	100					LOAM	
2 to 10	10YR	4.0/ 2	95	10YR 7/2	2	D	M	SILTY CLAY LOAM	
10 to 18	10YR	5.0/ 3	100					SILT LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.      <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators:**

☐ Histosol (A1)

☐ Histic Epipedon (A2)

☐ Black Histic (A3)

☐ Hydrogen Sulfide (A4)

☐ Stratified Layers (A5) LRR C

☐ 1 cm Muck (A9) LRR F D

☐ Depleted Below Dark Surface (A11)

☐ Thick Dark Surface (A12)

☐ Sandy Mucky Mineral (S1)

☐ Sandy Gleyed Matrix (S4)

☐ Sandy Redox (S5)

☐ Stripped Matrix (S6)

☐ Loamy Mucky Mineral (F1)

☐ Loamy Gleyed Matrix (F2)

☐ Depleted Matrix (F3)

☐ Redox Dark Surface (F6)

☐ Depleted Dark Surface (F7)

☐ Redox Depressions (F8)

☐ Vernal Pools (F9)

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

☐ 1 cm Muck (A9) (LRR C)

☐ 2 cm Muck (A10) (LRR B)

☐ Reduced Vertic (F18)

☐ Red Parent Material (TF2)

☐ Other (Explain in Remarks)

☐ **Restrictive Layer (if observed):**

Type:

Depth (inches):

**Hydric Soil Present?**      Yes      No X

Remarks:

Soil does not meet any hydric indicator.

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

HYDROLOGY

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

☐ Surface Water (A1)

☐ High Water Table (A2)

☐ Saturation (A3)

☐ Water Marks (B1) (Nonriverine)

☐ Sediment Deposits (B2) (Nonriverine)

☐ Drift Deposits (B3) (Nonriverine)

☐ Surface Soil Cracks (B6)

☐ Inundation Visible on Aerial Imagery (B7)

☐ Water-Stained Leaves (B9)

☐ Salt Crust (B11)

☐ Biotic Crust (B12)

☒ Aquatic Fauna (B13)

☐ Hydrogen Sulfide Odor (C1)

☐ Oxidized Rhizospheres along Living Roots (C3)

☐ Presence of Reduced Iron (C4)

☐ Recent Iron Reduction in Tilled Soils (C6)

☐ Thin Muck Surface (C7)

☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

☐ Water Marks (B1) (Riverine)

☐ Sediment Deposits (B2) (Riverine)

☐ Drift Deposits (B3) (Riverine)

☐ Drainage Patterns (B10)

☐ Dry-Season Water Table (C2)

☐ Crayfish Burrows (C8)

☐ Saturation Visible on Aerial Imag.(C9)

☐ Shallow Aquitard (D3)

☒ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present?      Yes      No X      Depth (inches):      --

Water Table Present?      Yes      No X      Depth (inches):      --

Saturation Present?      Yes      No X      Depth (inches):      --

(includes capillary fringe)

**Wetland Hydrology Present?**      Yes X      No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Sampling point meets criteria for wetland hydrology.

US Army Corps of Engineers

HDR

Arid West – Version 2.0

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 7/30/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 3 Sampling Point: 12-N-201207301117  
 Investigators: Trent Toler Section, Township, Range S 21 T 4 R 2  
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): Concave Slope(%) 0  
 Subregion (LRR): LRR D Lat: 41.0725253209 Long: -112.070021055 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Ford loam, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes \_\_\_\_\_ No X  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology X, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> <b>Wetland ID:</b> _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	

Remarks:  
 Sample in low point in mixed pasture. Looks like irrigation water influence.

## VEGETATION— Use scientific names of plants.

	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
<u>Tree Stratum</u>			
<u>Shrub Stratum</u>			
<u>Herb Stratum</u> (Plot size: <u>30 Ft</u> )			
<u>Distichlis spicata</u>	20	Y	FAC
<u>Juncus arcticus</u>	20	Y	FACW
<u>Puccinellia nuttalliana</u>	20	Y	FACW
<u>Trifolium fragiferum</u>	20	Y	FACU
<u>Hordeum jubatum</u>	15	N	FAC
<u>Carex praegracilis</u>	10	N	FACW
<u>Festuca idahoensis</u>	5	N	FACU
	110 =Total Cover		

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 3 (A)  
 Total Number of Dominant Species Across all Strata: 4 (B)  
 Percent of Dominant Species That are OBL, FACW, or FAC: 75.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>50</u>	x 2 = <u>100</u>
FAC species <u>35</u>	x 3 = <u>105</u>
FACU species <u>25</u>	x 4 = <u>100</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>110</u> (A)	<u>305</u> (B)

Prevalence Index = B/A= 2.77

### Hydrophytic Vegetation Indicators:

       Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
       Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
       Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No \_\_\_\_\_

% Bare Ground in Herb Stratum 20 % Cover of Biotic Crust \_\_\_\_\_

Remarks: (Include photo numbers here or on a separate sheet.)  
 Vegetation is hydrophytic.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 3	10YR 3.0/ 3	100					SANDY CLAY LOAM	
3 to 5	7.5YR 2.5/ 2	98	7.5YR 5/3	2	D	M	LOAM	
5 to 10	7.5YR 4.0/ 3	98	7.5YR 6/4	2	D	M	LOAM	
10 to 11	7.5YR 5.0/ 4	100					SANDY CLAY LOAM	Calcic layer
11 to 16	7.5YR 5.0/ 4	100					SANDY CLAY LOAM	
16 to 19	10YR 6.0/ 2	100					SANDY LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)           |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)       |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)   |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)   |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input type="checkbox"/> Depleted Matrix (F3)       |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)     |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)          |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |   |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- |   |
|---|
| <input type="checkbox"/> 1 cm Muck (A9) (LRR C)     |
| <input type="checkbox"/> 2 cm Muck (A10) (LRR B)    |
| <input type="checkbox"/> Reduced Vertic (F18)       |
| <input type="checkbox"/> Red Parent Material (TF2)  |
| <input type="checkbox"/> Other (Explain in Remarks) |

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.☒ **Restrictive Layer (if observed):**Type: calcicDepth (inches): 10**Hydric Soil Present?** Yes      No X

## Remarks:

Very hard calcic layer at 10 inches. Soil does not quite meet any hydric indicator, but close to F3.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- |   |
|---|
| <input type="checkbox"/> Water Marks (B1) (Riverine)            |
| <input type="checkbox"/> Sediment Deposits (B2) (Riverine)      |
| <input type="checkbox"/> Drift Deposits (B3) (Riverine)         |
| <input type="checkbox"/> Drainage Patterns (B10)                |
| <input type="checkbox"/> Dry-Season Water Table (C2)            |
| <input type="checkbox"/> Crayfish Burrows (C8)                  |
| <input type="checkbox"/> Saturation Visible on Aerial Imag.(C9) |
| <input type="checkbox"/> Shallow Aquitard (D3)                  |
| <input checked="" type="checkbox"/> FAC-Neutral Test (D5)       |

**Field Observations:**

Surface Water Present?	Yes <u>    </u> No <u>X</u>	Depth (inches):	<u>    --    </u>
Water Table Present?	Yes <u>    </u> No <u>X</u>	Depth (inches):	<u>    --    </u>
Saturation Present?	Yes <u>    </u> No <u>X</u>	Depth (inches):	<u>    --    </u>

(includes capillary fringe)

**Wetland Hydrology Present?** Yes      No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

Very dry and hard soil.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 7/30/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 3 Sampling Point: 12-N-201207301156  
 Investigators: Mike Perkins Nate Nichols Section, Township, Range S 21 T 4 R 2  
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): Concave Slope(%) 1  
 Subregion (LRR): LRR D Lat: 41.0745004842 Long: -112.068363019 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Ford loam, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes \_\_\_\_\_ No X  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology X, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> <b>Wetland ID:</b> _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks:  
 Area is not a wetland. No hydric soils indicators.

## VEGETATION— Use scientific names of plants.

**Absolute % Cover** **Dominant Species** **Indicator Status**

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

Carex nebrascensis	30	Y	OBL
Juncus arcticus	20	Y	FACW
Hordeum jubatum	15	N	FAC
Distichlis spicata	10	N	FAC
Festuca pratensis	5	N	FACU
Schoenoplectus pungens	5	N	OBL
Trifolium fragiferum	5	N	FACU
	90	=Total Cover	

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across all Strata: 2 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>35</u>	x 1 = <u>35</u>
FACW species <u>20</u>	x 2 = <u>40</u>
FAC species <u>25</u>	x 3 = <u>75</u>
FACU species <u>10</u>	x 4 = <u>40</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>90</u> (A)	<u>190</u> (B)

Prevalence Index = B/A = 2.11

### Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
 Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No \_\_\_\_\_

% Bare Ground in Herb Stratum 5 % Cover of Biotic Crust

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation is hydrophytic.

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix			Redox Features				Texture	Remarks
	Color (moist)		%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 2	10YR	3.0/ 2	100					LOAM	
2 to 10	10YR	3.0/ 3	98	10YR 7/2	2	D	M	SILTY CLAY LOAM	
10 to 12	10YR	5.0/ 4	100					CLAY LOAM	
12 to 18	10YR	6.0/ 4	100					SILTY CLAY	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) LRR C
- ☐ 1 cm Muck (A9) LRR F D
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

Indicators for Problematic Hydric Soils: <sup>3</sup>

- ☐ 1 cm Muck (A9) (LRR C)
- ☐ 2 cm Muck (A10) (LRR B)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ Restrictive Layer (if observed):

Type: \_\_\_\_\_  
Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes \_\_\_\_\_ No X

Remarks:  
Soil does not meet any hydric indicator.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3) (Nonriverine)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imag.(C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input checked="" type="checkbox"/> FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_  
Water Table Present? Yes X No \_\_\_\_\_ Depth (inches): 14  
Saturation Present? Yes X No \_\_\_\_\_ Depth (inches): 2  
(includes capillary fringe)

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:  
Field appears to be directly flood irrigated.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 7/30/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 3 Sampling Point: 12-N-201207301445  
 Investigators: Mike Perkins Nate Nichols Section, Township, Range S 21 T 4 R 2  
 Landform (hillslope, terrace, etc.): Basin Local Relief (concave, convex, none): Concave Slope(%) 5  
 Subregion (LRR): LRR D Lat: 41.0717922769 Long: -112.06898094 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Ford loam, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology X, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____ Hydric Soil Present? Yes _____ No <u>X</u> Wetland Hydrology Present? Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>X</u> Wetland ID: _____
Remarks: Sampling point not a wetland.	

### VEGETATION— Use scientific names of plants.

**Absolute % Cover    Dominant Species    Indicator Status**

#### Tree Stratum

#### Shrub Stratum (Plot size: 30 Ft )

<u>Sarcobatus vermiculatus</u>	25	Y	FAC
	25	=Total Cover	

#### Herb Stratum (Plot size: 30 Ft )

<u>Distichlis spicata</u>	20	Y	FAC
<u>Poa pratensis</u>	20	Y	FAC
<u>Carex praegracilis</u>	15	Y	FACW
<u>Hordeum jubatum</u>	15	Y	FAC
<u>Pascopyrum smithii</u>	15	Y	FAC
	85	=Total Cover	

#### Vine Stratum

#### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 6 (A)

Total Number of Dominant Species Across all Strata: 6 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

#### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>15</u>	x 2 = <u>30</u>
FAC species <u>95</u>	x 3 = <u>285</u>
FACU species <u>0</u>	x 4 = <u>0</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>110</u> (A)	<u>315</u> (B)

Prevalence Index = B/A= 2.86

#### Hydrophytic Vegetation Indicators:

\_\_\_\_ Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
 \_\_\_\_ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 \_\_\_\_ Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No \_\_\_\_\_

% Bare Ground in Herb Stratum 15 % Cover of Biotic Crust \_\_\_\_\_

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation is hydrophytic.



**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 6	10YR	3.0/ 3	100				SILTY CLAY LOAM	
6 to 16	10YR	4.0/ 4	100				SILTY CLAY LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- ☐ Histosol (A1)  
☐ Histic Epipedon (A2)  
☐ Black Histic (A3)  
☐ Hydrogen Sulfide (A4)  
☐ Stratified Layers (A5) LRR C  
☐ 1 cm Muck (A9) LRR F D  
☐ Depleted Below Dark Surface (A11)  
☐ Thick Dark Surface (A12)  
☐ Sandy Mucky Mineral (S1)  
☐ Sandy Gleyed Matrix (S4)

- ☐ Sandy Redox (S5)  
☐ Stripped Matrix (S6)  
☐ Loamy Mucky Mineral (F1)  
☐ Loamy Gleyed Matrix (F2)  
☐ Depleted Matrix (F3)  
☐ Redox Dark Surface (F6)  
☐ Depleted Dark Surface (F7)  
☐ Redox Depressions (F8)  
☐ Vernal Pools (F9)

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)  
☐ 2 cm Muck (A10) (LRR B)  
☐ Reduced Vertic (F18)  
☐ Red Parent Material (TF2)  
☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No X

## Remarks:

Soil failed to meet hydric soil indicators.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)  
☐ High Water Table (A2)  
☐ Saturation (A3)  
☐ Water Marks (B1) (Nonriverine)  
☐ Sediment Deposits (B2) (Nonriverine)  
☐ Drift Deposits (B3) (Nonriverine)  
☐ Surface Soil Cracks (B6)  
☐ Inundation Visible on Aerial Imagery (B7)  
☐ Water-Stained Leaves (B9)  
☐ Salt Crust (B11)  
☐ Biotic Crust (B12)  
☐ Aquatic Fauna (B13)  
☐ Hydrogen Sulfide Odor (C1)  
☐ Oxidized Rhizospheres along Living Roots (C3)  
☐ Presence of Reduced Iron (C4)  
☐ Recent Iron Reduction in Tilled Soils (C6)  
☐ Thin Muck Surface (C7)  
☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)  
☐ Sediment Deposits (B2) (Riverine)  
☐ Drift Deposits (B3) (Riverine)  
☐ Drainage Patterns (B10)  
☐ Dry-Season Water Table (C2)  
☐ Crayfish Burrows (C8)  
☐ Saturation Visible on Aerial Imag.(C9)  
☐ Shallow Aquitard (D3)  
☒ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_  
Water Table Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_  
Saturation Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_  
(includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

Dry area lacks evidence for wetland hydrology, but during dry time of year.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 7/30/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: \_\_\_\_\_ Sampling Point: 12-N-201207301510  
 Investigators: Trent Toler Section, Township, Range S 21 T 4 R 2  
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): Convex Slope(%) 0  
 Subregion (LRR): LRR D Lat: 41.0693526472 Long: -112.070126083 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Ford loam, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> <b>Wetland ID:</b> _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	

Remarks:  
 Horse pasture edge, saline meadow community but no wetland soils or hydrology.

## VEGETATION— Use scientific names of plants.

**Absolute % Cover** **Dominant Species** **Indicator Status**

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

Distichlis spicata	70	Y	FAC
Puccinellia nuttalliana	15	N	FACW
Salicornia rubra	10	N	OBL
	95	=Total Cover	

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 1 (A)  
 Total Number of Dominant Species Across all Strata: 1 (B)  
 Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>10</u>	x 1 = <u>10</u>
FACW species <u>15</u>	x 2 = <u>30</u>
FAC species <u>70</u>	x 3 = <u>210</u>
FACU species <u>0</u>	x 4 = <u>0</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>95</u> (A)	<u>250</u> (B)
Prevalence Index = B/A= <u>2.63</u>	

### Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
 Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No \_\_\_\_\_

% Bare Ground in Herb Stratum 15 % Cover of Biotic Crust

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation is hydrophytic.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 6	10YR	4.0/ 3	100				SANDY CLAY LOAM	
6 to 10	7.5YR	3.0/ 3	100				SANDY CLAY LOAM	
10 to 15	7.5YR	4.0/ 3	100				SANDY LOAM	
15 to 18	7.5YR	4.0/ 4	100				SANDY LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)           |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)       |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)   |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)   |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input type="checkbox"/> Depleted Matrix (F3)       |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)     |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)          |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |   |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- |   |
|---|
| <input type="checkbox"/> 1 cm Muck (A9) (LRR C)     |
| <input type="checkbox"/> 2 cm Muck (A10) (LRR B)    |
| <input type="checkbox"/> Reduced Vertic (F18)       |
| <input type="checkbox"/> Red Parent Material (TF2)  |
| <input type="checkbox"/> Other (Explain in Remarks) |

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No X

## Remarks:

Sandy, orange-brown soils. Soil does not meet any hydric indicator.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- |   |
|---|
| <input type="checkbox"/> Water Marks (B1) (Riverine)            |
| <input type="checkbox"/> Sediment Deposits (B2) (Riverine)      |
| <input type="checkbox"/> Drift Deposits (B3) (Riverine)         |
| <input type="checkbox"/> Drainage Patterns (B10)                |
| <input type="checkbox"/> Dry-Season Water Table (C2)            |
| <input type="checkbox"/> Crayfish Burrows (C8)                  |
| <input type="checkbox"/> Saturation Visible on Aerial Imag.(C9) |
| <input type="checkbox"/> Shallow Aquitard (D3)                  |
| <input type="checkbox"/> FAC-Neutral Test (D5)                  |

**Field Observations:**Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Water Table Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Saturation Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_

(includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

Very dry, no hydrology.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 7/30/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 4 Sampling Point: 12-N-201207301535  
 Investigators: Mike Perkins Nate Nichols Section, Township, Range S 21 T 4 R 2  
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): Convex Slope(%) 1  
 Subregion (LRR): LRR D Lat: 41.0707587228 Long: -112.069424199 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Ford loam, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes \_\_\_\_\_ No X  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology X, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> <b>Wetland ID:</b> _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	

Remarks:  
 Field pasture east of wetland depression is not a wetland. No hydric soils indicators.

## VEGETATION— Use scientific names of plants.

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
Distichlis spicata	25	Y	FAC
Hordeum jubatum	25	Y	FAC
Puccinellia nuttalliana	20	Y	FACW
Trifolium fragiferum	5	N	FACU
	75	=Total Cover	

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 3 (A)  
 Total Number of Dominant Species Across all Strata: 3 (B)  
 Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>20</u>	x 2 = <u>40</u>
FAC species <u>50</u>	x 3 = <u>150</u>
FACU species <u>5</u>	x 4 = <u>20</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>75</u> (A)	<u>210</u> (B)
Prevalence Index = B/A= <u>2.80</u>	

### Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
 Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No \_\_\_\_\_

% Bare Ground in Herb Stratum 10 % Cover of Biotic Crust \_\_\_\_\_

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation is hydrophytic.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 8	10YR	3.0 / 4	100				SILTY CLAY LOAM	
8 to 18	5YR	6.0 / 4	100				SANDY CLAY	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)           |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)       |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)   |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)   |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input type="checkbox"/> Depleted Matrix (F3)       |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)     |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)          |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |   |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)  
☐ 2 cm Muck (A10) (LRR B)  
☐ Reduced Vertic (F18)  
☐ Red Parent Material (TF2)  
☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No X

## Remarks:

No hydric indicators observed in soil profile.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)  
☐ Sediment Deposits (B2) (Riverine)  
☐ Drift Deposits (B3) (Riverine)  
☐ Drainage Patterns (B10)  
☐ Dry-Season Water Table (C2)  
☐ Crayfish Burrows (C8)  
☐ Saturation Visible on Aerial Imag.(C9)  
☐ Shallow Aquitard (D3)  
☒ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present?	Yes _____ No <u>X</u>	Depth (inches):	__
Water Table Present?	Yes _____ No <u>X</u>	Depth (inches):	__
Saturation Present?	Yes _____ No <u>X</u>	Depth (inches):	__

(includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

Dry area lacks sufficient evidence for wetland hydrology.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 5/9/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 4 Sampling Point: 12-W-201205091205  
 Investigators: Donovan Gross Mike Perkins Section, Township, Range S 21 T 4 R 2  
 Landform (hillslope, terrace, etc.): Basin Local Relief (concave, convex, none): Concave Slope(%) 20  
 Subregion (LRR): LRR D Lat: 41.0711158452 Long: -112.0712791 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Ford loam, 0 to 1 percent slopes NWI Classification: PEMA

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No        (If No, explain in Remarks)  
 Are Vegetation       , Soil       , Hydrology       , significantly disturbed? Are "Normal Circumstances" present? Yes X No         
 Are Vegetation       , Soil       , Hydrology       , naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No <u>      </u> Hydric Soil Present? Yes <u>X</u> No <u>      </u> Wetland Hydrology Present? Yes <u>X</u> No <u>      </u>	Is the Sampled Area within a Wetland? Yes <u>X</u> No <u>      </u> Wetland ID: <u>12-W-58</u>
---	---

Remarks:  
 Sampling point is a wetland.

## VEGETATION— Use scientific names of plants.

**Absolute % Cover**    **Dominant Species**    **Indicator Status**

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

Carex praegracilis	45	Y	FACW
Eleocharis palustris	45	Y	OBL
Typha latifolia	30	Y	OBL
Hordeum jubatum	20	N	FAC
Phragmites australis	20	N	FACW
Distichlis spicata	15	N	FAC
Schoenoplectus acutus	15	N	OBL
Trifolium fragiferum	15	N	FACU
	205	=Total Cover	

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across all Strata: 3 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>90</u>	x 1 = <u>90</u>
FACW species <u>65</u>	x 2 = <u>130</u>
FAC species <u>35</u>	x 3 = <u>105</u>
FACU species <u>15</u>	x 4 = <u>60</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>205</u> (A)	<u>385</u> (B)

Prevalence Index = B/A = 1.88

### Hydrophytic Vegetation Indicators:

       Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
       Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
       Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No       

% Bare Ground in Herb Stratum 2 % Cover of Biotic Crust

Remarks: (Include photo numbers here or on a separate sheet.)  
 Vegetation is hydrophytic.



**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)**

Depth (inches)	Matrix			Redox Features				Texture	Remarks
	Color (moist)		%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 7	10YR	3.0/ 1	95	10YR 5/4	5	C	PL	CLAY LOAM	
7 to 12	10YR	5.0/ 2	3	10YR 5/4	3	C	M	CLAY LOAM	
12 to 13	10YR	2.0/ 1	100					SANDY CLAY LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)                   |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)               |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)           |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)           |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input type="checkbox"/> Depleted Matrix (F3)               |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input checked="" type="checkbox"/> Redox Dark Surface (F6) |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7)         |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)             |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)                  |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |   |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)  
☐ 2 cm Muck (A10) (LRR B)  
☐ Reduced Vertic (F18)  
☐ Red Parent Material (TF2)  
☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☒ **Restrictive Layer (if observed):**

Type: calic  
Depth (inches): 13

**Hydric Soil Present?** Yes X No     

Remarks:  
Extremely hard restricted layer begins at 13". Soil meets criteria for hydric indicator F6.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input checked="" type="checkbox"/> High Water Table (A2)          | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input checked="" type="checkbox"/> Saturation (A3)                | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)  
☐ Sediment Deposits (B2) (Riverine)  
☐ Drift Deposits (B3) (Riverine)  
☐ Drainage Patterns (B10)  
☐ Dry-Season Water Table (C2)  
☐ Crayfish Burrows (C8)  
☐ Saturation Visible on Aerial Imag.(C9)  
☐ Shallow Aquitard (D3)  
☒ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present?	Yes <u>    </u>	No <u>X</u>	Depth (inches):	<u>    --    </u>
Water Table Present?	Yes <u>X</u>	No <u>    </u>	Depth (inches):	<u>    10    </u>
Saturation Present?	Yes <u>X</u>	No <u>    </u>	Depth (inches):	<u>    0    </u>

(includes capillary fringe)

**Wetland Hydrology Present?** Yes X No     

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:  
Wetland hydrology present.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 5/9/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: \_\_\_\_\_ Sampling Point: 12-W-201205091253  
 Investigators: Ron Kass Ron Kass Section, Township, Range S 16 T 4 R 2  
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): Concave Slope(%) 0  
 Subregion (LRR): LRR D Lat: 41.0753237287 Long: -112.07493104 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Warm Springs fine sandy loam, saline, sodic, 0 to 1 percent slopes NWI Classification: PEMC  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes \_\_\_\_\_ No X (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes \_\_\_\_\_ No X  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology X, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ <b>Wetland ID:</b> <u>12-W-50</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks:  
 Sampling point is a wetland based on vegetation and soils primarily, with secondary hydrology indicators.

## VEGETATION— Use scientific names of plants.

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
<u>Distichlis spicata</u>	<u>30</u>	<u>Y</u>	<u>FAC</u>
<u>Carex praegracilis</u>	<u>20</u>	<u>Y</u>	<u>FACW</u>
<u>Eleocharis palustris</u>	<u>20</u>	<u>Y</u>	<u>OBL</u>
<u>Festuca pratensis</u>	<u>10</u>	<u>N</u>	<u>FACU</u>
<u>Hordeum jubatum</u>	<u>10</u>	<u>N</u>	<u>FAC</u>
<u>Juncus arcticus</u>	<u>5</u>	<u>N</u>	<u>FACW</u>
	<u>1</u>	<u>N</u>	<u>OBL</u>
	<u>96</u>	<u>=Total Cover</u>	

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across all Strata: 3 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>21</u>	x 1 = <u>21</u>
FACW species <u>25</u>	x 2 = <u>50</u>
FAC species <u>40</u>	x 3 = <u>120</u>
FACU species <u>10</u>	x 4 = <u>40</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>96</u> (A)	<u>231</u> (B)

Prevalence Index = B/A = 2.41

### Hydrophytic Vegetation Indicators:

   Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
   Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
   Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No \_\_\_\_\_

% Bare Ground in Herb Stratum \_\_\_\_\_ % Cover of Biotic Crust \_\_\_\_\_

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation is hydrophytic.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix			Redox Features				Texture	Remarks
	Color (moist)		%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 8	10YR	5.0 / 1	100					SILTY CLAY	
8 to 16	10YR	6.0 / 2	100					CLAY LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- ☐ Histosol (A1)  
☐ Histic Epipedon (A2)  
☐ Black Histic (A3)  
☐ Hydrogen Sulfide (A4)  
☐ Stratified Layers (A5) LRR C  
☐ 1 cm Muck (A9) LRR F D  
☐ Depleted Below Dark Surface (A11)  
☐ Thick Dark Surface (A12)  
☐ Sandy Mucky Mineral (S1)  
☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)  
☐ Stripped Matrix (S6)  
☐ Loamy Mucky Mineral (F1)  
☐ Loamy Gleyed Matrix (F2)  
☒ Depleted Matrix (F3)  
☐ Redox Dark Surface (F6)  
☐ Depleted Dark Surface (F7)  
☐ Redox Depressions (F8)  
☐ Vernal Pools (F9)

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)  
☐ 2 cm Muck (A10) (LRR B)  
☐ Reduced Vertic (F18)  
☐ Red Parent Material (TF2)  
☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes X No \_\_\_\_\_

## Remarks:

Soil meets criteria for hydric indicator F3.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)  
☐ High Water Table (A2)  
☐ Saturation (A3)  
☐ Water Marks (B1) (Nonriverine)  
☐ Sediment Deposits (B2) (Nonriverine)  
☐ Drift Deposits (B3) (Nonriverine)  
☐ Surface Soil Cracks (B6)  
☐ Inundation Visible on Aerial Imagery (B7)  
☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)  
☐ Biotic Crust (B12)  
☐ Aquatic Fauna (B13)  
☐ Hydrogen Sulfide Odor (C1)  
☐ Oxidized Rhizospheres along Living Roots (C3)  
☐ Presence of Reduced Iron (C4)  
☐ Recent Iron Reduction in Tilled Soils (C6)  
☐ Thin Muck Surface (C7)  
☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)  
☐ Sediment Deposits (B2) (Riverine)  
☐ Drift Deposits (B3) (Riverine)  
☒ Drainage Patterns (B10)  
☐ Dry-Season Water Table (C2)  
☐ Crayfish Burrows (C8)  
☐ Saturation Visible on Aerial Imag.(C9)  
☐ Shallow Aquitard (D3)  
☒ FAC-Neutral Test (D5)

**Field Observations:**Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Water Table Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Saturation Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_

(includes capillary fringe)

**Wetland Hydrology Present?** Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

Area lacks strong evidence for wetland hydrology, likely irrigation confounded with history drainage patterns.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 5/9/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 3 Sampling Point: 12-W-201205091432  
 Investigators: Donovan Gross Section, Township, Range S 21 T 4 R 2  
 Landform (hillslope, terrace, etc.): Basin Local Relief (concave, convex, none): Concave Slope(%) 2  
 Subregion (LRR): LRR D Lat: 41.0722250905 Long: -112.07023901 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Ford loam, 0 to 1 percent slopes NWI Classification: PEMA

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No        (If No, explain in Remarks)  
 Are Vegetation       , Soil       , Hydrology       , significantly disturbed? Are "Normal Circumstances" present? Yes X No         
 Are Vegetation       , Soil       , Hydrology       , naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No <u>      </u> Hydric Soil Present? Yes <u>X</u> No <u>      </u> Wetland Hydrology Present? Yes <u>X</u> No <u>      </u>	Is the Sampled Area within a Wetland? Yes <u>X</u> No <u>      </u> Wetland ID: <u>12-W-59</u>
Remarks: Upper edge of wetland.	

## VEGETATION— Use scientific names of plants.

<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
20	Y	FACW
15	Y	FACW
15	Y	FAC
15	Y	FAC
5	N	FAC
70	=Total Cover	

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

Juncus arcticus	20	Y	FACW
Carex praegracilis	15	Y	FACW
Distichlis spicata	15	Y	FAC
Hordeum jubatum	15	Y	FAC
Rumex crispus	5	N	FAC

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 4 (A)  
 Total Number of Dominant Species Across all Strata: 4 (B)  
 Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>35</u>	x 2 = <u>70</u>
FAC species <u>35</u>	x 3 = <u>105</u>
FACU species <u>0</u>	x 4 = <u>0</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>70</u> (A)	<u>175</u> (B)
Prevalence Index = B/A = <u>2.50</u>	

### Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
 Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No       

% Bare Ground in Herb Stratum 20 % Cover of Biotic Crust 10

Remarks: (Include photo numbers here or on a separate sheet.)  
 Vegetation is hydrophytic.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix			Redox Features				Texture	Remarks
	Color (moist)		%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 2	2.5YR	5.0 / 4	100					SANDY CLAY LOAM	
2 to 7	10YR	4.0 / 2	30	10YR 5/1	70	D	M	CLAY LOAM	
7 to 18	7.5YR	6.0 / 3	100					SILTY CLAY LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |  |
|--|--|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)                |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)            |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)        |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)        |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input checked="" type="checkbox"/> Depleted Matrix (F3) |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)         |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7)      |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)          |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)               |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |  |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)  
☐ 2 cm Muck (A10) (LRR B)  
☐ Reduced Vertic (F18)  
☐ Red Parent Material (TF2)  
☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☒ **Restrictive Layer (if observed):**

Type: calcic  
Depth (inches): 18

Hydric Soil Present? Yes X No     

## Remarks:

2-7 inch horizon streaked and mottled w/ 4/2 and 5/1 soils. Soil meets criteria for hydric indicator F3.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input checked="" type="checkbox"/> Biotic Crust (B12)                 |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)  
☐ Sediment Deposits (B2) (Riverine)  
☐ Drift Deposits (B3) (Riverine)  
☒ Drainage Patterns (B10)  
☐ Dry-Season Water Table (C2)  
☐ Crayfish Burrows (C8)  
☐ Saturation Visible on Aerial Imag.(C9)  
☐ Shallow Aquitard (D3)  
☒ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present?	Yes <u>    </u>	No <u>X</u>	Depth (inches):	<u>    --    </u>
Water Table Present?	Yes <u>    </u>	No <u>X</u>	Depth (inches):	<u>    --    </u>
Saturation Present?	Yes <u>    </u>	No <u>X</u>	Depth (inches):	<u>    --    </u>

(includes capillary fringe)

Wetland Hydrology Present? Yes X No     

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

Part of defined channel and floodplain, pit is on bank near upper edge of wetland

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 5/9/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 3 Sampling Point: 12-W-201205091657  
 Investigators: Donovan Gross Section, Township, Range S 21 T 4 R 2  
 Landform (hillslope, terrace, etc.): Basin Local Relief (concave, convex, none): Concave Slope(%) 2  
 Subregion (LRR): LRR D Lat: 41.0722902058 Long: -112.071176049 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Ford loam, 0 to 1 percent slopes NWI Classification: PEMA

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No        (If No, explain in Remarks)  
 Are Vegetation       , Soil       , Hydrology       , significantly disturbed? Are "Normal Circumstances" present? Yes X No         
 Are Vegetation       , Soil       , Hydrology       , naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No <u>      </u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No <u>      </u> <b>Wetland ID:</b> <u>12-W-59</u>
Hydric Soil Present? Yes <u>X</u> No <u>      </u>	
Wetland Hydrology Present? Yes <u>X</u> No <u>      </u>	

Remarks:  
 Wetland in shallow, swale-like channel. All 3 parameters met as a wetland.

## VEGETATION— Use scientific names of plants.

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
Distichlis spicata	25	Y	FAC
Eleocharis palustris	15	Y	OBL
Trifolium fragiferum	15	Y	FACU
Juncus arcticus	10	N	FACW
Carex praegracilis	5	N	FACW
Hordeum jubatum	5	N	FAC
Juncus bufonius	3	N	FACW
	78 =Total Cover		

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across all Strata: 3 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 66.7% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>15</u>	x 1 = <u>15</u>
FACW species <u>18</u>	x 2 = <u>36</u>
FAC species <u>30</u>	x 3 = <u>90</u>
FACU species <u>15</u>	x 4 = <u>60</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>78</u> (A)	<u>201</u> (B)

Prevalence Index = B/A= 2.58

### Hydrophytic Vegetation Indicators:

       Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
       Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
       Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No       

% Bare Ground in Herb Stratum 10 % Cover of Biotic Crust 10

Remarks: (Include photo numbers here or on a separate sheet.)  
 Closely grazed by horses, lumpy hummocky surface. Vegetation community qualifies as hydrophytic.



**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)**

Depth (inches)	Matrix			Redox Features				Texture	Remarks
	Color (moist)		%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 5	10YR	4.0 / 1	95	7.5YR 4/4	5	C	M	SILTY CLAY LOAM	
5 to 13	10YR	3.0 / 2	95	7.5YR 4/4	5	C	M	SILTY CLAY LOAM	
13 to 15	10YR	6.0 / 2	100					SILTY CLAY	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |  |
|--|--|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)                |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)            |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)        |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)        |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input checked="" type="checkbox"/> Depleted Matrix (F3) |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)         |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7)      |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)          |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)               |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |  |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)  
☐ 2 cm Muck (A10) (LRR B)  
☐ Reduced Vertic (F18)  
☐ Red Parent Material (TF2)  
☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☒ **Restrictive Layer (if observed):**

Type: calcareous  
Depth (inches): 13

Hydric Soil Present? Yes X No     

Remarks:  
Soil fit hydric indicator F3.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input checked="" type="checkbox"/> Biotic Crust (B12)                 |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)  
☐ Sediment Deposits (B2) (Riverine)  
☐ Drift Deposits (B3) (Riverine)  
☒ Drainage Patterns (B10)  
☐ Dry-Season Water Table (C2)  
☐ Crayfish Burrows (C8)  
☐ Saturation Visible on Aerial Imag.(C9)  
☐ Shallow Aquitard (D3)  
☒ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present?	Yes <u>    </u> No <u>X</u>	Depth (inches): <u>    </u>
Water Table Present?	Yes <u>    </u> No <u>X</u>	Depth (inches): <u>    </u>
Saturation Present?	Yes <u>    </u> No <u>X</u>	Depth (inches): <u>    </u>

(includes capillary fringe)

Wetland Hydrology Present? Yes X No     

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

Biotic crust indicates wetland hydrology. Wetland in shallow swale leading to surface water.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 5/10/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: \_\_\_\_\_ Sampling Point: 12-W-201205101050  
 Investigators: Mike Perkins Brian Nicholson Section, Township, Range S 21 T 4 R 2  
 Landform (hillslope, terrace, etc.): Basin Local Relief (concave, convex, none): Concave Slope(%) 2  
 Subregion (LRR): LRR D Lat: 41.0690165523 Long: -112.0703804 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Ford loam, 0 to 1 percent slopes NWI Classification: PEMC

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil X, Hydrology \_\_\_\_\_, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ <b>Wetland ID:</b> <u>12-W-21</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks:  
 Saline wetland.

## VEGETATION— Use scientific names of plants.

<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
<u>10</u>	<u>N</u>	<u>OBL</u>
<u>10</u>	=Total Cover	
<u>50</u>	<u>Y</u>	<u>FAC</u>
<u>50</u>	<u>Y</u>	<u>FACW</u>
<u>3</u>	<u>Y</u>	<u>FAC</u>
<u>103</u>	=Total Cover	

### Tree Stratum

### Shrub Stratum (Plot size: 30 Ft )

Salicornia rubra

### Herb Stratum (Plot size: 30 Ft )

Distichlis spicata

Puccinellia nuttalliana

Sarcobatus vermiculatus

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across all Strata: 3 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>10</u>	x 1 = <u>10</u>
FACW species <u>50</u>	x 2 = <u>100</u>
FAC species <u>53</u>	x 3 = <u>159</u>
FACU species <u>0</u>	x 4 = <u>0</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>113</u> (A)	<u>269</u> (B)

Prevalence Index = B/A = 2.38

### Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
 Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No \_\_\_\_\_

% Bare Ground in Herb Stratum 25 % Cover of Biotic Crust

Remarks: (Include photo numbers here or on a separate sheet.)  
 Vegetation is hydrophytic.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 5	10YR	4.0/ 3	100				CLAY LOAM	
5 to 11	10YR	5.0/ 3	100				CLAY LOAM	
11 to 14	10YR	5.0/ 4	100				SANDY CLAY LOAM	
14 to 20	10YR	6.0/ 4	100				SANDY CLAY LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)           |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)       |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)   |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)   |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input type="checkbox"/> Depleted Matrix (F3)       |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)     |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)          |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |   |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)  
☐ 2 cm Muck (A10) (LRR B)  
☐ Reduced Vertic (F18)  
☐ Red Parent Material (TF2)  
☒ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes X No \_\_\_\_\_**Remarks:**

No hydric indicators observed but likely masked by alkalinity/salinity. Soil potentially hydric because of likely high alkalinity along with depressional topography and hydrophytic vegetation community.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)  
☐ Sediment Deposits (B2) (Riverine)  
☐ Drift Deposits (B3) (Riverine)  
☒ Drainage Patterns (B10)  
☐ Dry-Season Water Table (C2)  
☐ Crayfish Burrows (C8)  
☐ Saturation Visible on Aerial Imag.(C9)  
☐ Shallow Aquitard (D3)  
☒ FAC-Neutral Test (D5)

**Field Observations:**Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Water Table Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Saturation Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_

(includes capillary fringe)

**Wetland Hydrology Present?** Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

**Remarks:**

Sampling point meets criteria for wetland hydrology. Salt crust with efflorescence does not qualify for B11.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 5/7/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: \_\_\_\_\_ Sampling Point: 11-N-201205071412  
 Investigators: Ron Kass Paul Dawson Section, Township, Range S 20 T 4 R 2  
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): None Slope(%) 0  
 Subregion (LRR): LRR D Lat: 41.0672604989 Long: -112.093924189 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Warm Springs fine sandy loam, saline, sodic, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>X</u>
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes <u>X</u> No _____	
Wetland ID: _____	

Remarks:  
Sampling point not a wetland.

## VEGETATION— Use scientific names of plants.

**Absolute % Cover** **Dominant Species** **Indicator Status**

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

<u>Festuca pratensis</u>	<u>70</u>	<u>Y</u>	<u>FACU</u>
<u>Distichlis spicata</u>	<u>15</u>	<u>N</u>	<u>FAC</u>
<u>Carex praegracilis</u>	<u>10</u>	<u>N</u>	<u>FACW</u>
	<u>95</u>	=Total Cover	

### Vine Stratum

## Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 1 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 0.0% (A/B)

## Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>10</u>	x 2 = <u>20</u>
FAC species <u>15</u>	x 3 = <u>45</u>
FACU species <u>70</u>	x 4 = <u>280</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>95</u> (A)	<u>345</u> (B)

Prevalence Index = B/A= 3.63

## Hydrophytic Vegetation Indicators:

\_\_\_\_ Rapid Test for Hydrophytic Vegetation  
 \_\_\_\_ Dominance Test > 50%  
 \_\_\_\_ Prevalence Index ≤ 3.0  
 \_\_\_\_ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 \_\_\_\_ Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes \_\_\_\_\_ No X

% Bare Ground in Herb Stratum 0 % Cover of Biotic Crust

Remarks: (Include photo numbers here or on a separate sheet.)  
Vegetation is not hydrophytic.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)**

Depth (inches)	Matrix		Redox Features					Texture	Remarks
	Color (moist)		%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 18	2.5Y	6.0/ 3	95	2.5YR 4/6	7	C	M	SANDY LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)           |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)       |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)   |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)   |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input type="checkbox"/> Depleted Matrix (F3)       |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)     |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)          |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |   |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- |   |
|---|
| <input type="checkbox"/> 1 cm Muck (A9) (LRR C)     |
| <input type="checkbox"/> 2 cm Muck (A10) (LRR B)    |
| <input type="checkbox"/> Reduced Vertic (F18)       |
| <input type="checkbox"/> Red Parent Material (TF2)  |
| <input type="checkbox"/> Other (Explain in Remarks) |

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No X

## Remarks:

Soil profile does not meet criteria for hydric indicators (Matrix chroma 3).

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input checked="" type="checkbox"/> High Water Table (A2)          | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input checked="" type="checkbox"/> Saturation (A3)                | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- |   |
|---|
| <input type="checkbox"/> Water Marks (B1) (Riverine)            |
| <input type="checkbox"/> Sediment Deposits (B2) (Riverine)      |
| <input type="checkbox"/> Drift Deposits (B3) (Riverine)         |
| <input type="checkbox"/> Drainage Patterns (B10)                |
| <input type="checkbox"/> Dry-Season Water Table (C2)            |
| <input type="checkbox"/> Crayfish Burrows (C8)                  |
| <input type="checkbox"/> Saturation Visible on Aerial Imag.(C9) |
| <input type="checkbox"/> Shallow Aquitard (D3)                  |
| <input type="checkbox"/> FAC-Neutral Test (D5)                  |

**Field Observations:**Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Water Table Present? Yes X No \_\_\_\_\_ Depth (inches): 11Saturation Present? Yes X No \_\_\_\_\_ Depth (inches): 4

(includes capillary fringe)

**Wetland Hydrology Present?** Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

Wetland hydrology present.

# WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: WDC ACDG-07272016-1-IN City/County: Davis County Sampling Date: 7/27/2016  
 Applicant/Owner: UDOT State: Utah Sampling Point: ACDG-07272016  
 Investigator(s): DG/AC Section, Township, Range: 20 4N 2W  
 Landform (hillslope, terrace, etc.): depression Local relief (concave, convex, none): concave Slope (%): <1%  
 Subregion (LRR): D Lat: 41.06790531 Long: -112.0989113 Datum: D WGS 1983  
 Soil Map Unit Name: Warm Springs fine sandy loam, saline, sodic, 0 to 1 percent slopes NWI classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil ☒, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____	
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	
Remarks:  Saline meadow area south of active alfalfa field and north of active horse pasture.	

## VEGETATION – Use scientific names of plants.

<b>Tree Stratum</b> (Plot size: _____) 1. _____ 2. _____ 3. _____ 4. _____ _____ = Total Cover <b>Sapling/Shrub Stratum</b> (Plot size: _____) 1. _____ 2. _____ 3. _____ 4. _____ 5. _____ _____ = Total Cover <b>Herb Stratum</b> (Plot size: <u>5 ft. radius</u> ) 1. <u>Distichlis spicata</u> 25% Yes FAC 2. <u>Hordeum jubatum</u> 10% Yes FAC 3. <u>Cordylanthus maritimus</u> 10% Yes OBL 4. <u>Puccinellia nuttalliana</u> 10% Yes FACW 5. <u>unknown chenopod</u> 5% 6. _____ 7. _____ 8. _____ _____ = Total Cover <b>Woody Vine Stratum</b> (Plot size: _____) 1. _____ 2. _____ _____ = Total Cover % Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>4</u> (A) Total Number of Dominant Species Across All Strata: <u>4</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B) <b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____ <b>Hydrophytic Vegetation Indicators:</b> <input checked="" type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. <b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No _____
Remarks:  Vegetation passes dominance test.	



# SOIL

Sampling Point: ACDG-0724

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features			Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>		
0-11	10YR 5/1	60%	10YR 7/3	35%	M		very fine sand
			2.5N	5%	M		black marbling
11-18	10YR 7/3	100%					very fine sand

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) (**LRR C**)
- ☐ 1 cm Muck (A9) (**LRR D**)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)

- ☐ Sandy Redox (S5)
- ☒ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- ☐ 1 cm Muck (A9) (**LRR C**)
- ☐ 2 cm Muck (A10) (**LRR B**)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes ☒ No ☐

Remarks:

Soil profile fits Stripped Matrix (S6) indicator.

# HYDROLOGY

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1) (**Nonriverine**)
- ☐ Sediment Deposits (B2) (**Nonriverine**)
- ☐ Drift Deposits (B3) (**Nonriverine**)
- ☒ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)

- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) (**Riverine**)
- ☐ Sediment Deposits (B2) (**Riverine**)
- ☐ Drift Deposits (B3) (**Riverine**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☒ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present? Yes ☐ No ☒ Depth (inches): \_\_\_\_\_

Water Table Present? Yes ☐ No ☒ Depth (inches): \_\_\_\_\_

Saturation Present? Yes ☐ No ☒ Depth (inches): \_\_\_\_\_  
(includes capillary fringe)

**Wetland Hydrology Present?** Yes ☒ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Surface Soil cracks indicate wetland hydrology.

# WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: WDC ACDG-07272016-1-OUT City/County: Davis County Sampling Date: 7/27/2016  
 Applicant/Owner: UDOT State: Utah Sampling Point: ACDG-07272016-1-OUT  
 Investigator(s): DG/AC Section, Township, Range: 20 4N 2W  
 Landform (hillslope, terrace, etc.): depression Local relief (concave, convex, none): concave Slope (%): <1%  
 Subregion (LRR): D Lat: 41.06765511 Long: -112.0988592 Datum: D WGS 1983  
 Soil Map Unit Name: Warm Springs fine sandy loam, saline, sodic, 0 to 1 percent slopes NWI classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____	
Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	
Remarks:  Irrigated from east side.	

## VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: _____ (A)  Total Number of Dominant Species Across All Strata: _____ (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
_____ = Total Cover				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species <u>6</u> x 1 = <u>6</u> FACW species <u>15</u> x 2 = <u>30</u> FAC species <u>70</u> x 3 = <u>210</u> FACU species _____ x 4 = _____ UPL species <u>80</u> x 5 = <u>400</u> Column Totals: <u>171</u> (A) <u>646</u> (B)  Prevalence Index = B/A = <u>3.78</u>
<b>Sapling/Shrub Stratum</b> (Plot size: _____)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
_____ = Total Cover				
<b>Herb Stratum</b> (Plot size: <u>5 ft radius</u> )				<b>Hydrophytic Vegetation Indicators:</b> ___ Dominance Test is >50% ___ Prevalence Index is ≤3.0 <sup>1</sup> ___ Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.  <b>Hydrophytic Vegetation Present?</b> Yes _____ No <input checked="" type="checkbox"/>
1. <u>Thinopyrum intermedium</u>	<u>80%</u>	<u>Yes</u>	<u>NL</u>	
2. <u>Trifolium fragiferum</u>	<u>60%</u>	<u>Yes</u>	<u>FAC</u>	
3. <u>Puccinellia nuttalliana</u>	<u>10%</u>		<u>FACW</u>	
4. <u>Hordeum jubatum</u>	<u>10%</u>		<u>FAC</u>	
5. <u>Cordylanthus maritimus</u>	<u>1%</u>		<u>OBL</u>	
6. <u>Plantago major</u>	<u>5%</u>		<u>FAC</u>	
7. <u>Eleocharis palustris</u>	<u>5%</u>		<u>OBL</u>	
8. _____	_____	_____	_____	
_____ = Total Cover				
<b>Woody Vine Stratum</b> (Plot size: _____)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
_____ = Total Cover				
% Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____				
Remarks:  Wetland species present but not dominant.				

# SOIL

Sampling Point: ACDG-0724

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
1-6	10YR 5/1	100%					SaLoam	
6-10	10YR 5/1	90%	10YR 7/3	9%			SaLoam	
			Black Mn conc	1%			SaLoam	
10-16	10YR 7/3	100%						

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

☐ Histosol (A1)  
☐ Histic Epipedon (A2)  
☐ Black Histic (A3)  
☐ Hydrogen Sulfide (A4)  
☐ Stratified Layers (A5) (**LRR C**)  
☐ 1 cm Muck (A9) (**LRR D**)  
☐ Depleted Below Dark Surface (A11)  
☐ Thick Dark Surface (A12)  
☐ Sandy Mucky Mineral (S1)  
☐ Sandy Gleyed Matrix (S4)

☐ Sandy Redox (S5)  
☐ Stripped Matrix (S6)  
☐ Loamy Mucky Mineral (F1)  
☐ Loamy Gleyed Matrix (F2)  
☒ Depleted Matrix (F3)  
☐ Redox Dark Surface (F6)  
☐ Depleted Dark Surface (F7)  
☐ Redox Depressions (F8)  
☐ Vernal Pools (F9)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

☐ 1 cm Muck (A9) (**LRR C**)  
☐ 2 cm Muck (A10) (**LRR B**)  
☐ Reduced Vertic (F18)  
☐ Red Parent Material (TF2)  
☐ Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes ☒ No ☐

Remarks:

Dark mottles occur below 6 inches.

# HYDROLOGY

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one required; check all that apply)

☐ Surface Water (A1)  
☐ High Water Table (A2)  
☐ Saturation (A3)  
☐ Water Marks (B1) (**Nonriverine**)  
☐ Sediment Deposits (B2) (**Nonriverine**)  
☐ Drift Deposits (B3) (**Nonriverine**)  
☐ Surface Soil Cracks (B6)  
☐ Inundation Visible on Aerial Imagery (B7)  
☐ Water-Stained Leaves (B9)

☐ Salt Crust (B11)  
☐ Biotic Crust (B12)  
☐ Aquatic Invertebrates (B13)  
☐ Hydrogen Sulfide Odor (C1)  
☐ Oxidized Rhizospheres along Living Roots (C3)  
☐ Presence of Reduced Iron (C4)  
☐ Recent Iron Reduction in Tilled Soils (C6)  
☐ Thin Muck Surface (C7)  
☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

☐ Water Marks (B1) (**Riverine**)  
☐ Sediment Deposits (B2) (**Riverine**)  
☐ Drift Deposits (B3) (**Riverine**)  
☐ Drainage Patterns (B10)  
☐ Dry-Season Water Table (C2)  
☐ Crayfish Burrows (C8)  
☐ Saturation Visible on Aerial Imagery (C9)  
☐ Shallow Aquitard (D3)  
☒ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present? Yes ☐ No ☒ Depth (inches): \_\_\_\_\_

Water Table Present? Yes ☐ No ☒ Depth (inches): \_\_\_\_\_

Saturation Present? Yes ☐ No ☒ Depth (inches): \_\_\_\_\_  
(includes capillary fringe)

**Wetland Hydrology Present?** Yes ☐ No ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Site is dry.

# WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: WDC MPDG-07282016-2-IN City/County: Davis County Sampling Date: 7/28/2016  
 Applicant/Owner: UDOT State: Utah Sampling Point: MPDG-07282016-2  
 Investigator(s): MP/DG Section, Township, Range: 20 4N 2W  
 Landform (hillslope, terrace, etc.): terrace/depression Local relief (concave, convex, none): concave Slope (%): <1%  
 Subregion (LRR): D Lat: 41.06806008 Long: -112.1014597 Datum: D WGS 1983  
 Soil Map Unit Name: Warm Springs fine sandy loam, saline, sodic, 0 to 1 percent slopes NWI classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____	
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	
Remarks:	

## VEGETATION – Use scientific names of plants.

<b>Tree Stratum</b> (Plot size: _____) 1. _____ 2. _____ 3. _____ 4. _____ _____ = Total Cover <b>Sapling/Shrub Stratum</b> (Plot size: _____) 1. _____ 2. _____ 3. _____ 4. _____ 5. _____ _____ = Total Cover <b>Herb Stratum</b> (Plot size: <u>5 ft. radius</u> ) 1. <u>Distichlis spicata</u> <u>100%</u> <u>Yes</u> <u>FAC</u> 2. <u>Puccinellia nuttalliana</u> <u>25%</u> <u></u> <u>FACW</u> 3. <u>Chenopodium album</u> <u>5%</u> <u></u> <u>FACU</u> 4. <u>Hordeum jubatum</u> <u>5%</u> <u></u> <u>FAC</u> 5. _____ 6. _____ 7. _____ 8. _____ _____ = Total Cover <b>Woody Vine Stratum</b> (Plot size: _____) 1. _____ 2. _____ _____ = Total Cover % Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B) <b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____ <b>Hydrophytic Vegetation Indicators:</b> <input checked="" type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. <b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No _____
Remarks:	

# SOIL

Sampling Point: MPDG-07

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-3	10YR 4/3	70%	10YR 6/3	10%	D	M	SiLoam	
	10YR 4/2	20%						
3-14	10YR 4/2	80%			D	M	SiClLoam	
	10YR 5/3	15%	Gley 1 2.5/N	3%	C	M		
			7.5YR 5/8	2%	C	M		

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) (**LRR C**)
- ☐ 1 cm Muck (A9) (**LRR D**)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)

- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☒ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- ☐ 1 cm Muck (A9) (**LRR C**)
- ☐ 2 cm Muck (A10) (**LRR B**)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes ☒ No ☐

Remarks:

# HYDROLOGY

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1) (**Nonriverine**)
- ☐ Sediment Deposits (B2) (**Nonriverine**)
- ☐ Drift Deposits (B3) (**Nonriverine**)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☒ Water-Stained Leaves (B9)

- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☒ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) (**Riverine**)
- ☐ Sediment Deposits (B2) (**Riverine**)
- ☐ Drift Deposits (B3) (**Riverine**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present? Yes ☐ No ☒ Depth (inches): \_\_\_\_\_

Water Table Present? Yes ☐ No ☒ Depth (inches): \_\_\_\_\_

Saturation Present? Yes ☐ No ☒ Depth (inches): \_\_\_\_\_  
(includes capillary fringe)

**Wetland Hydrology Present?** Yes ☒ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Wetland includes pond/channel with surface water (12") present.

# WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: WDC MPDG-07282016-2-OUT City/County: Davis County Sampling Date: 7/28/2016  
 Applicant/Owner: UDOT State: Utah Sampling Point: MPDG-07282016-2-OUT  
 Investigator(s): MP/DG Section, Township, Range: 20 4N 2W  
 Landform (hillslope, terrace, etc.): terrace/depression Local relief (concave, convex, none): concave Slope (%): 1-2%  
 Subregion (LRR): D Lat: 41.06803305 Long: -112.101381 Datum: D WGS 1983  
 Soil Map Unit Name: Warm Springs fine sandy loam, saline, sodic, 0 to 1 percent slopes NWI classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation ☒, Soil ☒, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/>	
Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	
Remarks: Area may entail sidecast material from ditch and pond. This disturbance does not appear to be recent. Upland area.	

## VEGETATION – Use scientific names of plants.

<b>Tree Stratum</b> (Plot size: _____) 1. _____ 2. _____ 3. _____ 4. _____ _____ = Total Cover <b>Sapling/Shrub Stratum</b> (Plot size: _____) 1. _____ 2. _____ 3. _____ 4. _____ 5. _____ _____ = Total Cover <b>Herb Stratum</b> (Plot size: <u>5 ft. radius</u> ) 1. <u>Chenopodium album</u> <u>100%</u> <u>Yes</u> <u>FACU</u> 2. <u>Hordeum jubatum</u> <u>5%</u> <u></u> <u>FAC</u> 3. <u>Lepidium perfoliatum</u> <u>5%</u> <u></u> <u>FACU</u> 4. <u>Puccinellia nuttalliana</u> <u>2%</u> <u></u> <u>FACW</u> 5. <u>Epilobium</u> <u>2%</u> <u></u> <u>FACW</u> 6. _____ 7. _____ 8. _____ _____ = Total Cover <b>Woody Vine Stratum</b> (Plot size: _____) 1. _____ 2. _____ _____ = Total Cover % Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B) <b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species <u>4</u> x 2 = <u>8</u> FAC species <u>5</u> x 3 = <u>15</u> FACU species <u>105</u> x 4 = <u>420</u> UPL species _____ x 5 = _____ Column Totals: <u>114</u> (A) <u>443</u> (B) Prevalence Index = B/A = <u>3.89</u> <b>Hydrophytic Vegetation Indicators:</b> ___ Dominance Test is >50% ___ Prevalence Index is ≤3.0 <sup>1</sup> ___ Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. <b>Hydrophytic Vegetation Present?</b> Yes _____ No <input checked="" type="checkbox"/>
Remarks: Disturbed and weedy upland.	



**SOIL**Sampling Point: MPDG-07**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-3	10YR 4/2	60%					SiLoam	
	10YR 6/2	30%						
	10YR 4/4	10%						
3-10	10YR 4/2	90%	10YR 6/2	5%			SiLoam	
	10YR 2/1	5%						
10+	7.5YR 6/3	100%						

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                           | <input type="checkbox"/> Sandy Redox (S5)           |
| <input type="checkbox"/> Histic Epipedon (A2)                    | <input type="checkbox"/> Stripped Matrix (S6)       |
| <input type="checkbox"/> Black Histic (A3)                       | <input type="checkbox"/> Loamy Mucky Mineral (F1)   |
| <input type="checkbox"/> Hydrogen Sulfide (A4)                   | <input type="checkbox"/> Loamy Gleyed Matrix (F2)   |
| <input type="checkbox"/> Stratified Layers (A5) ( <b>LRR C</b> ) | <input type="checkbox"/> Depleted Matrix (F3)       |
| <input type="checkbox"/> 1 cm Muck (A9) ( <b>LRR D</b> )         | <input type="checkbox"/> Redox Dark Surface (F6)    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11)       | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12)                | <input type="checkbox"/> Redox Depressions (F8)     |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)                | <input type="checkbox"/> Vernal Pools (F9)          |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)                |   |

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- ☐ 1 cm Muck (A9) (**LRR C**)
- ☐ 2 cm Muck (A10) (**LRR B**)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.**Restrictive Layer (if present):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No ☒

Remarks:

Fill/sidecast material from adjacent ditch.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                            | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                         | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                               | <input type="checkbox"/> Aquatic Invertebrates (B13)                   |
| <input type="checkbox"/> Water Marks (B1) ( <b>Nonriverine</b> )       | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) ( <b>Nonriverine</b> ) | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) ( <b>Nonriverine</b> )    | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                      | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)     | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                     | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) (**Riverine**)
- ☐ Sediment Deposits (B2) (**Riverine**)
- ☐ Drift Deposits (B3) (**Riverine**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

**Field Observations:**Surface Water Present? Yes \_\_\_\_\_ No ☒ Depth (inches): \_\_\_\_\_Water Table Present? Yes \_\_\_\_\_ No ☒ Depth (inches): \_\_\_\_\_Saturation Present? Yes \_\_\_\_\_ No ☒ Depth (inches): \_\_\_\_\_  
(includes capillary fringe)**Wetland Hydrology Present?** Yes \_\_\_\_\_ No ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Dry disturbed area.

# WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: WDC MPDG-07282016-3-IN City/County: Davis County Sampling Date: 7/28/2016  
 Applicant/Owner: UDOT State: Utah Sampling Point: MPDG-07282016-3-IN  
 Investigator(s): MP/DG Section, Township, Range: 20 4N 2W  
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): concave Slope (%): 1%  
 Subregion (LRR): D Lat: 41.07046682 Long: -112.1030872 Datum: D WGS 1983  
 Soil Map Unit Name: Ford loam, 0 to 1 percent slopes NWI classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____	
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	
Remarks: Saline wet meadow with a wetter swale. Possibly part of historic playa or alkali flats. Heavily grazed.	

## VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)  Total Number of Dominant Species Across All Strata: <u>2</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
_____ = Total Cover				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B)  Prevalence Index = B/A = _____
<b>Sapling/Shrub Stratum</b> (Plot size: _____)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
_____ = Total Cover				
<b>Herb Stratum</b> (Plot size: <u>5 ft. radius</u> )				<b>Hydrophytic Vegetation Indicators:</b> <input checked="" type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. <u>Distichlis spicata</u>	<u>35%</u>	<u>Yes</u>	<u>FAC</u>	
2. <u>Suaeda occidentalis</u>	<u>30%</u>	<u>Yes</u>	<u>FACW</u>	
3. <u>Puccinellia nuttalliana</u>	<u>10%</u>		<u>FACW</u>	
4. <u>Cordylanthus maritimus</u>	<u>5%</u>		<u>OBL</u>	
5. <u>Thinopyrum intermedium</u>	<u>5%</u>		<u>NL</u>	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
_____ = Total Cover				
<b>Woody Vine Stratum</b> (Plot size: _____)				<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No _____
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
_____ = Total Cover				
% Bare Ground in Herb Stratum <u>10</u> % Cover of Biotic Crust <u>10</u>				

Remarks:

Area heavily grazed and barren in some spots, but hydrophytic.

# SOIL

Sampling Point: MPDG-07

## Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-6	10YR 5/2	97%	10YR 5/8	3%	C	M	SiClLoam	
6-11	10YR 5/2	80%	10YR 5/8	15%	C	M	SiClLoam	
			Gley 1 2.5/N	5%	C	M		
11-16	10YR 4/2	80%	7.5YR 4/8	5%	C	M	ClLoam	
			7.5YR 6/3	15%	D	M		
16+	7.5YR 6/4	60%	10YR 6/2	40%	D	M	ClLoam	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

### Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- |  |  |
|--|--|
| <input type="checkbox"/> Histosol (A1)                           | <input type="checkbox"/> Sandy Redox (S5)                  |
| <input type="checkbox"/> Histic Epipedon (A2)                    | <input type="checkbox"/> Stripped Matrix (S6)              |
| <input type="checkbox"/> Black Histic (A3)                       | <input type="checkbox"/> Loamy Mucky Mineral (F1)          |
| <input type="checkbox"/> Hydrogen Sulfide (A4)                   | <input type="checkbox"/> Loamy Gleyed Matrix (F2)          |
| <input type="checkbox"/> Stratified Layers (A5) ( <b>LRR C</b> ) | <input checked="" type="checkbox"/> Depleted Matrix (F3)   |
| <input type="checkbox"/> 1 cm Muck (A9) ( <b>LRR D</b> )         | <input type="checkbox"/> Redox Dark Surface (F6)           |
| <input type="checkbox"/> Depleted Below Dark Surface (A11)       | <input type="checkbox"/> Depleted Dark Surface (F7)        |
| <input type="checkbox"/> Thick Dark Surface (A12)                | <input checked="" type="checkbox"/> Redox Depressions (F8) |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)                | <input type="checkbox"/> Vernal Pools (F9)                 |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)                |  |

### Indicators for Problematic Hydric Soils<sup>3</sup>:

- ☐ 1 cm Muck (A9) (**LRR C**)
- ☐ 2 cm Muck (A10) (**LRR B**)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

### Restrictive Layer (if present):

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes ☒ No ☐

Remarks:

# HYDROLOGY

## Wetland Hydrology Indicators:

### Primary Indicators (minimum of one required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                            | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                         | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input checked="" type="checkbox"/> Saturation (A3)                    | <input type="checkbox"/> Aquatic Invertebrates (B13)                   |
| <input type="checkbox"/> Water Marks (B1) ( <b>Nonriverine</b> )       | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) ( <b>Nonriverine</b> ) | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) ( <b>Nonriverine</b> )    | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                      | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)     | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                     | <input type="checkbox"/> Other (Explain in Remarks)                    |

### Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) (**Riverine**)
- ☐ Sediment Deposits (B2) (**Riverine**)
- ☐ Drift Deposits (B3) (**Riverine**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☒ FAC-Neutral Test (D5)

### Field Observations:

- Surface Water Present? Yes ☐ No ☒ Depth (inches): \_\_\_\_\_
- Water Table Present? Yes ☐ No ☒ Depth (inches): >17
- Saturation Present? Yes ☒ No ☐ Depth (inches): 11  
(includes capillary fringe)

Wetland Hydrology Present? Yes ☒ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Saturated @ 11". Standing water down-gradient in wetland.

# WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: WDC MPDG-07282016-3-OUT City/County: Davis County Sampling Date: 7/28/2016  
 Applicant/Owner: UDOT State: Utah Sampling Point: MPDG-07282016-3-OUT  
 Investigator(s): MP/DG Section, Township, Range: 20 4N 2W  
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): convex Slope (%): 1%  
 Subregion (LRR): D Lat: 41.07045353 Long: -112.1031313 Datum: D WGS 1983  
 Soil Map Unit Name: Ford loam, 0 to 1 percent slopes NWI classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Hydric Soil Present? Yes _____ No _____	
Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	
Remarks:  Upland vegetation. Didn't sample soils.	

## VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)  Total Number of Dominant Species Across All Strata: <u>2</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50%</u> (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
_____ = Total Cover				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species <u>20</u> x 3 = <u>60</u> FACU species _____ x 4 = _____ UPL species <u>80</u> x 5 = <u>400</u> Column Totals: <u>100</u> (A) <u>460</u> (B)  Prevalence Index = B/A = <u>4.6</u>
<b>Sapling/Shrub Stratum (Plot size: _____)</b> 1. _____ 2. _____ 3. _____ 4. _____ 5. _____ _____ = Total Cover				
<b>Herb Stratum (Plot size: <u>5 ft. radius</u>)</b> 1. <u>Thinopyrum intermedium</u> <u>80%</u> <u>Yes</u> <u>NL</u> 2. <u>Lepidium latifolium</u> <u>20%</u> <u>Yes</u> <u>FAC</u> 3. _____ 4. _____ 5. _____ 6. _____ 7. _____ 8. _____ _____ = Total Cover				
<b>Woody Vine Stratum (Plot size: _____)</b> 1. _____ 2. _____ _____ = Total Cover				
% Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____				
Remarks:				<b>Hydrophytic Vegetation Indicators:</b> ___ Dominance Test is >50% ___ Prevalence Index is ≤3.0 <sup>1</sup> ___ Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
				<b>Hydrophytic Vegetation Present?</b> Yes _____ No <input checked="" type="checkbox"/>

## SOIL

Sampling Point: MPDG-07 

[illegible]

## HYDROLOGY

Wetland Hydrology Indicators:		
Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (2 or more required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) ( <b>Riverine</b> )
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) ( <b>Riverine</b> )
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) ( <b>Riverine</b> )
<input type="checkbox"/> Water Marks (B1) ( <b>Nonriverine</b> )	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) ( <b>Nonriverine</b> )	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3) ( <b>Nonriverine</b> )	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present?    Yes <input type="checkbox"/> No <input type="checkbox"/> Depth (inches): _____ Water Table Present?    Yes <input type="checkbox"/> No <input type="checkbox"/> Depth (inches): _____ Saturation Present?    Yes <input type="checkbox"/> No <input type="checkbox"/> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		
Dry site. No indicators observed.		

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 5/10/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 2 Sampling Point: 09-N-201205101234  
 Investigators: Ron Kass Paul Dawson Section, Township, Range S 17 T 4 R 2  
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): None Slope(%) 1  
 Subregion (LRR): LRR D Lat: 41.0864477562 Long: -112.0859056 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Ford loam, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____ Hydric Soil Present? Yes _____ No <u>X</u> Wetland Hydrology Present? Yes <u>X</u> No _____	Is the Sampled Area within a Wetland? Yes _____ No <u>X</u> Wetland ID: _____
---	--

Remarks:  
 Sampling point not a wetland. Appears to be irrigation confounding. Soils not hydric.

### VEGETATION— Use scientific names of plants.

	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
<u>Tree Stratum</u>			
<u>Shrub Stratum</u>			
<u>Herb Stratum</u> (Plot size: <u>30 Ft</u> )			
Carex praegracilis	50	Y	FACW
Hordeum jubatum	30	Y	FAC
Eleocharis palustris	10	N	OBL
Carex nebrascensis	5	N	OBL
Festuca pratensis	5	N	FACU
	100	=Total Cover	
<u>Vine Stratum</u>			

#### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 2 (A)  
 Total Number of Dominant Species Across all Strata: 2 (B)  
 Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

#### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>15</u>	x 1 = <u>15</u>
FACW species <u>50</u>	x 2 = <u>100</u>
FAC species <u>30</u>	x 3 = <u>90</u>
FACU species <u>5</u>	x 4 = <u>20</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>100</u> (A)	<u>225</u> (B)
Prevalence Index = B/A= <u>2.25</u>	

#### Hydrophytic Vegetation Indicators:

\_\_\_\_ Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
 \_\_\_\_ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 \_\_\_\_ Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

% Bare Ground in Herb Stratum \_\_\_\_\_ % Cover of Biotic Crust \_\_\_\_\_

**Hydrophytic Vegetation Present?** Yes X No \_\_\_\_\_

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation is hydrophytic.



**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 8	10YR	4 / 2	100				SILT LOAM	
8 to 18	10YR	5 / 2	100				CLAY LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)           |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)       |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)   |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)   |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input type="checkbox"/> Depleted Matrix (F3)       |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)     |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)          |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |   |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)
- ☐ 2 cm Muck (A10) (LRR B)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No X

## Remarks:

No hydric indicators observed in soil profile.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input checked="" type="checkbox"/> Surface Water (A1)             | <input type="checkbox"/> Salt Crust (B11)                              |
| <input checked="" type="checkbox"/> High Water Table (A2)          | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input checked="" type="checkbox"/> Saturation (A3)                | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)
- ☐ Sediment Deposits (B2) (Riverine)
- ☐ Drift Deposits (B3) (Riverine)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Shallow Aquitard (D3)
- ☒ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present? Yes X No \_\_\_\_\_ Depth (inches): 1

Water Table Present? Yes X No \_\_\_\_\_ Depth (inches): 0

Saturation Present? Yes X No \_\_\_\_\_ Depth (inches): 0

(includes capillary fringe)

**Wetland Hydrology Present?** Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

Hydrology present within field that is flood irrigated.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 5/10/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 2 Sampling Point: 09-N-201205101325  
 Investigators: Ron Kass Paul Dawson Section, Township, Range S 17 T 4 R 2  
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): Concave Slope(%) 1  
 Subregion (LRR): LRR D Lat: 41.0882584742 Long: -112.085082767 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Ford loam, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> <b>Wetland ID:</b> _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	

Remarks:  
 Sampling point has hydrophytic vegetation, but does not contain hydric soils or evidence of wetland hydrology.

## VEGETATION— Use scientific names of plants.

**Absolute % Cover** **Dominant Species** **Indicator Status**

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

<u>Festuca pratensis</u>	<u>50</u>	<u>Y</u>	<u>FACU</u>
<u>Carex praegracilis</u>	<u>30</u>	<u>Y</u>	<u>FACW</u>
<u>Juncus arcticus</u>	<u>20</u>	<u>Y</u>	<u>FACW</u>
	<u>100</u>	=Total Cover	

### Vine Stratum

## Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 2 (A)  
 Total Number of Dominant Species Across all Strata: 3 (B)  
 Percent of Dominant Species That are OBL, FACW, or FAC: 66.7% (A/B)

## Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>50</u>	x 2 = <u>100</u>
FAC species <u>0</u>	x 3 = <u>0</u>
FACU species <u>50</u>	x 4 = <u>200</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>100</u> (A)	<u>300</u> (B)
Prevalence Index = B/A= <u>3.00</u>	

## Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
 Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No \_\_\_\_\_

% Bare Ground in Herb Stratum \_\_\_\_\_ % Cover of Biotic Crust \_\_\_\_\_

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation is hydrophytic.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 8	10YR	4.0/ 2	100				CLAY LOAM	
8 to 18	10YR	6.0/ 3	100				CLAY LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- ☐ Histosol (A1)  
☐ Histic Epipedon (A2)  
☐ Black Histic (A3)  
☐ Hydrogen Sulfide (A4)  
☐ Stratified Layers (A5) LRR C  
☐ 1 cm Muck (A9) LRR F D  
☐ Depleted Below Dark Surface (A11)  
☐ Thick Dark Surface (A12)  
☐ Sandy Mucky Mineral (S1)  
☐ Sandy Gleyed Matrix (S4)

- ☐ Sandy Redox (S5)  
☐ Stripped Matrix (S6)  
☐ Loamy Mucky Mineral (F1)  
☐ Loamy Gleyed Matrix (F2)  
☐ Depleted Matrix (F3)  
☐ Redox Dark Surface (F6)  
☐ Depleted Dark Surface (F7)  
☐ Redox Depressions (F8)  
☐ Vernal Pools (F9)

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)  
☐ 2 cm Muck (A10) (LRR B)  
☐ Reduced Vertic (F18)  
☐ Red Parent Material (TF2)  
☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No X

## Remarks:

No hydric indicators observed in soil profile.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)  
☐ High Water Table (A2)  
☐ Saturation (A3)  
☐ Water Marks (B1) (Nonriverine)  
☐ Sediment Deposits (B2) (Nonriverine)  
☐ Drift Deposits (B3) (Nonriverine)  
☐ Surface Soil Cracks (B6)  
☐ Inundation Visible on Aerial Imagery (B7)  
☐ Water-Stained Leaves (B9)  
☐ Salt Crust (B11)  
☐ Biotic Crust (B12)  
☐ Aquatic Fauna (B13)  
☐ Hydrogen Sulfide Odor (C1)  
☐ Oxidized Rhizospheres along Living Roots (C3)  
☐ Presence of Reduced Iron (C4)  
☐ Recent Iron Reduction in Tilled Soils (C6)  
☐ Thin Muck Surface (C7)  
☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)  
☐ Sediment Deposits (B2) (Riverine)  
☐ Drift Deposits (B3) (Riverine)  
☐ Drainage Patterns (B10)  
☐ Dry-Season Water Table (C2)  
☐ Crayfish Burrows (C8)  
☐ Saturation Visible on Aerial Imag.(C9)  
☐ Shallow Aquitard (D3)  
☒ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_  
Water Table Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_  
Saturation Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_  
(includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

Lacks sufficient evidence for wetland hydrology.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 7/16/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 2 Sampling Point: 09-N-201207161235  
 Investigators: Mike Perkins Nate Nichols Section, Township, Range S 17 T 4 R 2  
 Landform (hillslope, terrace, etc.): Basin Local Relief (concave, convex, none): None Slope(%) 2  
 Subregion (LRR): LRR D Lat: 41.0884839634 Long: -112.087828462 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Warm Springs fine sandy loam, saline, sodic, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland?	Yes _____ No <u>X</u>
Hydric Soil Present?	Yes _____ No <u>X</u>		
Wetland Hydrology Present?	Yes _____ No <u>X</u>		Wetland ID: _____

Remarks:  
 Sampling point does not contain hydrophytic vegetation, hydric soils, or evidence of wetland hydrology.

## VEGETATION— Use scientific names of plants.

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
<u>Festuca pratensis</u>	<u>60</u>	<u>Y</u>	<u>FACU</u>
<u>Thinopyrum ponticum</u>	<u>20</u>	<u>Y</u>	<u>UPL</u>
<u>Carex praegracilis</u>	<u>5</u>	<u>N</u>	<u>FACW</u>
<u>Puccinellia nuttalliana</u>	<u>5</u>	<u>N</u>	<u>FACW</u>
<u>Red Clover</u>	<u>5</u>	<u>N</u>	<u>FACU</u>
	<u>95</u>	<u>=Total Cover</u>	

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species  
That are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant  
Species Across all Strata: 2 (B)

Percent of Dominant Species  
That are OBL, FACW, or FAC: 0.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>10</u>	x 2 = <u>20</u>
FAC species <u>0</u>	x 3 = <u>0</u>
FACU species <u>65</u>	x 4 = <u>260</u>
UPL species <u>20</u>	x 5 = <u>100</u>
Column Totals: <u>95</u> (A)	<u>380</u> (B)

Prevalence Index = B/A = 4.00

### Hydrophytic Vegetation Indicators:

☐ Rapid Test for Hydrophytic Vegetation  
☐ Dominance Test > 50%  
☐ Prevalence Index ≤ 3.0  
☐ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
☐ Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic  
Vegetation Present? Yes \_\_\_\_\_ No X

% Bare Ground in Herb Stratum 0 % Cover of Biotic Crust

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation is upland grass dominated.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 1	10YR 4.0/ 3	100		0			SANDY LOAM	
1 to 4	10YR 4.0/ 2	100		0			CLAY LOAM	
4 to 5	10YR 5.0/ 1	100		0			CLAY LOAM	
5 to 9	10YR 4.0/ 3	95	Gley1 2.5/N	5	C	M	SILT LOAM	
9 to 18	7.5YR 6.0/ 4	100		0			CLAY	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)           |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)       |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)   |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)   |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input type="checkbox"/> Depleted Matrix (F3)       |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)     |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)          |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |   |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- |   |
|---|
| <input type="checkbox"/> 1 cm Muck (A9) (LRR C)     |
| <input type="checkbox"/> 2 cm Muck (A10) (LRR B)    |
| <input type="checkbox"/> Reduced Vertic (F18)       |
| <input type="checkbox"/> Red Parent Material (TF2)  |
| <input type="checkbox"/> Other (Explain in Remarks) |

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No X

## Remarks:

Soil profile does not meet criteria for hydric indicators (matrix chroma 3 at 5-9).

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- |  |
|--|
| <input type="checkbox"/> Water Marks (B1) (Riverine)             |
| <input type="checkbox"/> Sediment Deposits (B2) (Riverine)       |
| <input type="checkbox"/> Drift Deposits (B3) (Riverine)          |
| <input type="checkbox"/> Drainage Patterns (B10)                 |
| <input type="checkbox"/> Dry-Season Water Table (C2)             |
| <input type="checkbox"/> Crayfish Burrows (C8)                   |
| <input type="checkbox"/> Saturation Visible on Aerial Imag. (C9) |
| <input type="checkbox"/> Shallow Aquitard (D3)                   |
| <input type="checkbox"/> FAC-Neutral Test (D5)                   |

**Field Observations:**

Surface Water Present?	Yes _____ No <u>X</u>	Depth (inches):	____
Water Table Present?	Yes _____ No <u>X</u>	Depth (inches):	____
Saturation Present?	Yes _____ No <u>X</u>	Depth (inches):	____

(includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

No indicators, soil is dry.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 7/16/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 2 Sampling Point: 09-N-201207161503  
 Investigators: Mike Perkins Donovan Gross Section, Township, Range S 17 T 4 R 2  
 Landform (hillslope, terrace, etc.): Basin Local Relief (concave, convex, none): None Slope(%) 2  
 Subregion (LRR): LRR D Lat: 41.0884941849 Long: -112.085597936 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Ford loam, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology X, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u>  <b>Wetland ID:</b> _____
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes _____ No <u>X</u>	

Remarks:  
 Upland pit.

## VEGETATION— Use scientific names of plants.

<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
80	Y	UPL
10	N	FACU
90	=Total Cover	

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

Thinopyrum intermedium

Festuca pratensis

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 1 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 0.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>0</u>	x 2 = <u>0</u>
FAC species <u>0</u>	x 3 = <u>0</u>
FACU species <u>10</u>	x 4 = <u>40</u>
UPL species <u>80</u>	x 5 = <u>400</u>
Column Totals: <u>90</u> (A)	<u>440</u> (B)

Prevalence Index = B/A= 4.89

### Hydrophytic Vegetation Indicators:

☐ Rapid Test for Hydrophytic Vegetation  
☐ Dominance Test > 50%  
☐ Prevalence Index ≤ 3.0  
☐ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
☐ Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes \_\_\_\_\_ No X

% Bare Ground in Herb Stratum 0 % Cover of Biotic Crust \_\_\_\_\_

Remarks: (Include photo numbers here or on a separate sheet.)

Upland dominated.



**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix			Redox Features				Texture	Remarks
	Color (moist)		%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 2	10YR	2.0/ 1	100		0			LOAM	
2 to 6	10YR	5.0/ 2	90	Gley1 2.5/N	10	C	M	SILTY CLAY	black Mn conc
6 to 10	10YR	5.0/ 3	100		0			SILTY CLAY	
10 to 18	7.5YR	4.0/ 3	100		0			SILTY CLAY	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |  |
|--|--|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)                |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)            |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)        |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)        |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input checked="" type="checkbox"/> Depleted Matrix (F3) |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)         |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7)      |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)          |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)               |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |  |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- |   |
|---|
| <input type="checkbox"/> 1 cm Muck (A9) (LRR C)     |
| <input type="checkbox"/> 2 cm Muck (A10) (LRR B)    |
| <input type="checkbox"/> Reduced Vertic (F18)       |
| <input type="checkbox"/> Red Parent Material (TF2)  |
| <input type="checkbox"/> Other (Explain in Remarks) |

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes X No \_\_\_\_\_

## Remarks:

Soil profile meets F3 indicator.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- |   |
|---|
| <input type="checkbox"/> Water Marks (B1) (Riverine)            |
| <input type="checkbox"/> Sediment Deposits (B2) (Riverine)      |
| <input type="checkbox"/> Drift Deposits (B3) (Riverine)         |
| <input type="checkbox"/> Drainage Patterns (B10)                |
| <input type="checkbox"/> Dry-Season Water Table (C2)            |
| <input type="checkbox"/> Crayfish Burrows (C8)                  |
| <input type="checkbox"/> Saturation Visible on Aerial Imag.(C9) |
| <input type="checkbox"/> Shallow Aquitard (D3)                  |
| <input type="checkbox"/> FAC-Neutral Test (D5)                  |

**Field Observations:**

Surface Water Present?	Yes _____ No <u>X</u>	Depth (inches):	____
Water Table Present?	Yes _____ No <u>X</u>	Depth (inches):	____
Saturation Present?	Yes _____ No <u>X</u>	Depth (inches):	____

(includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

No indicators observed.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 7/17/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 2 Sampling Point: 09-N-201207171228  
 Investigators: Mike Perkins Donovan Gross Section, Township, Range S 17 T 4 R 2  
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): None Slope(%) 0  
 Subregion (LRR): LRR D Lat: 41.0867316223 Long: -112.08605093 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Ford loam, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> Wetland ID: _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks:  
 Sample point suggests area is not a wetland.

## VEGETATION— Use scientific names of plants.

**Absolute % Cover** **Dominant Species** **Indicator Status**

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

Puccinellia nuttalliana	30	Y	FACW
Distichlis spicata	25	Y	FAC
Hordeum jubatum	25	Y	FAC
Eleocharis palustris	15	N	OBL
Festuca pratensis	15	N	FACU
Juncus arcticus	5	N	FACW
Thinopyrum intermedium	5	N	UPL
	120	=Total Cover	

### Vine Stratum

## Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across all Strata: 3 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

## Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>15</u>	x 1 = <u>15</u>
FACW species <u>35</u>	x 2 = <u>70</u>
FAC species <u>50</u>	x 3 = <u>150</u>
FACU species <u>15</u>	x 4 = <u>60</u>
UPL species <u>5</u>	x 5 = <u>25</u>
Column Totals: <u>120</u> (A)	<u>320</u> (B)

Prevalence Index = B/A= 2.67

## Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
 Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No \_\_\_\_\_

% Bare Ground in Herb Stratum 0 % Cover of Biotic Crust \_\_\_\_\_

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation is hydrophytic.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix			Redox Features				Texture	Remarks
	Color (moist)		%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 1	10YR	5.0/ 6	100		0			LOAM	
1 to 6	2.5YR	5.0/ 2	100		0			SILTY CLAY LOAM	
6 to 12	7.5YR	4.0/ 3	100		0			SANDY CLAY	
12 to 18	7.5YR	5.0/ 4	100		0			SANDY CLAY	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)           |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)       |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)   |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)   |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input type="checkbox"/> Depleted Matrix (F3)       |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)     |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)          |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |   |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- |   |
|---|
| <input type="checkbox"/> 1 cm Muck (A9) (LRR C)     |
| <input type="checkbox"/> 2 cm Muck (A10) (LRR B)    |
| <input type="checkbox"/> Reduced Vertic (F18)       |
| <input type="checkbox"/> Red Parent Material (TF2)  |
| <input type="checkbox"/> Other (Explain in Remarks) |

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No XRemarks:  
Soils do not meet hydric criteria.**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input checked="" type="checkbox"/> Saturation (A3)                | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- |   |
|---|
| <input type="checkbox"/> Water Marks (B1) (Riverine)            |
| <input type="checkbox"/> Sediment Deposits (B2) (Riverine)      |
| <input type="checkbox"/> Drift Deposits (B3) (Riverine)         |
| <input type="checkbox"/> Drainage Patterns (B10)                |
| <input type="checkbox"/> Dry-Season Water Table (C2)            |
| <input type="checkbox"/> Crayfish Burrows (C8)                  |
| <input type="checkbox"/> Saturation Visible on Aerial Imag.(C9) |
| <input type="checkbox"/> Shallow Aquitard (D3)                  |
| <input checked="" type="checkbox"/> FAC-Neutral Test (D5)       |

**Field Observations:**Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Water Table Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Saturation Present? Yes X No \_\_\_\_\_ Depth (inches): 12

(includes capillary fringe)

**Wetland Hydrology Present?** Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:  
Saturation just qualifies.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 7/17/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 2 Sampling Point: 09-N-201207171312  
 Investigators: Mike Perkins Donovan Gross Section, Township, Range S 17 T 4 R 2  
 Landform (hillslope, terrace, etc.): Basin Local Relief (concave, convex, none): None Slope(%) 2  
 Subregion (LRR): LRR D Lat: 41.0868316276 Long: -112.085459524 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Ford loam, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> <b>Wetland ID:</b> _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks:  
 Sample point suggests area is not a wetland.

## VEGETATION— Use scientific names of plants.

**Absolute % Cover** **Dominant Species** **Indicator Status**

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

Hordeum jubatum	25	Y	FAC
Carex nebrascensis	20	Y	OBL
Eleocharis palustris	20	Y	OBL
Puccinellia nuttalliana	15	N	FACW
	80	=Total Cover	

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across all Strata: 3 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>40</u>	x 1 = <u>40</u>
FACW species <u>15</u>	x 2 = <u>30</u>
FAC species <u>25</u>	x 3 = <u>75</u>
FACU species <u>0</u>	x 4 = <u>0</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>80</u> (A)	<u>145</u> (B)

Prevalence Index = B/A = 1.81

### Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
 Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No \_\_\_\_\_

% Bare Ground in Herb Stratum 15 % Cover of Biotic Crust

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation is hydrophytic.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)**

Depth (inches)	Matrix			Redox Features				Texture	Remarks
	Color (moist)		%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 6	10YR	5.0 / 2	100		0			SILTY CLAY LOAM	
6 to 14	7.5YR	6.0 / 3	70	10YR 5/2	30	D	M	CLAY LOAM	
14 to 18	7.5YR	6.0 / 3	100	10YR 5/2	30	D	M	CLAY LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)           |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)       |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)   |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)   |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input type="checkbox"/> Depleted Matrix (F3)       |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)     |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)          |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |   |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)  
☐ 2 cm Muck (A10) (LRR B)  
☐ Reduced Vertic (F18)  
☐ Red Parent Material (TF2)  
☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No X

## Remarks:

Soil profile does not meet criteria for hydric indicators.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)  
☐ Sediment Deposits (B2) (Riverine)  
☐ Drift Deposits (B3) (Riverine)  
☐ Drainage Patterns (B10)  
☐ Dry-Season Water Table (C2)  
☐ Crayfish Burrows (C8)  
☐ Saturation Visible on Aerial Imag.(C9)  
☐ Shallow Aquitard (D3)  
☒ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present?	Yes <u>X</u>	No _____	Depth (inches):	<u>1</u>
Water Table Present?	Yes _____	No <u>X</u>	Depth (inches):	<u>--</u>
Saturation Present?	Yes <u>X</u>	No _____	Depth (inches):	<u>0</u>

(includes capillary fringe)

**Wetland Hydrology Present?** Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

Surface wet, but dry below 6 inches with no shallow water table.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 7/16/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 2 Sampling Point: 09-W-201207161305  
 Investigators: Mike Perkins Donovan Gross Section, Township, Range S 17 T 4 R 2  
 Landform (hillslope, terrace, etc.): Basin Local Relief (concave, convex, none): None Slope(%) 2  
 Subregion (LRR): LRR D Lat: 41.0885114257 Long: -112.087721065 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Warm Springs fine sandy loam, saline, sodic, 0 to 1 percent slopes NWI Classification: PEMA  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No        (If No, explain in Remarks)  
 Are Vegetation       , Soil       , Hydrology       , significantly disturbed? Are "Normal Circumstances" present? Yes X No         
 Are Vegetation       , Soil       , Hydrology       , naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No <u>      </u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No <u>      </u> Wetland ID: <u>09-IW-17</u>
Hydric Soil Present? Yes <u>X</u> No <u>      </u>	
Wetland Hydrology Present? Yes <u>X</u> No <u>      </u>	

Remarks:  
 Sampling point is a wetland. Site is clearly irrigated by concrete lined ditches and appears to be isolated (no outflow).

## VEGETATION— Use scientific names of plants.

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
<u>Festuca pratensis</u>	<u>25</u>	<u>Y</u>	<u>FACU</u>
<u>Carex praegracilis</u>	<u>20</u>	<u>Y</u>	<u>FACW</u>
<u>Eleocharis palustris</u>	<u>20</u>	<u>Y</u>	<u>OBL</u>
<u>Puccinellia nuttalliana</u>	<u>20</u>	<u>Y</u>	<u>FACW</u>
<u>Hordeum jubatum</u>	<u>10</u>	<u>N</u>	<u>FAC</u>
<u>Rumex crispus</u>	<u>10</u>	<u>N</u>	<u>FAC</u>
<u>Trifolium fragiferum</u>	<u>10</u>	<u>N</u>	<u>FACU</u>
	<u>115</u>	<u>=Total Cover</u>	

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across all Strata: 4 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 75.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>20</u>	x 1 = <u>20</u>
FACW species <u>40</u>	x 2 = <u>80</u>
FAC species <u>20</u>	x 3 = <u>60</u>
FACU species <u>35</u>	x 4 = <u>140</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>115</u> (A)	<u>300</u> (B)

Prevalence Index = B/A = 2.61

### Hydrophytic Vegetation Indicators:

       Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
       Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
       Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

### Hydrophytic Vegetation Present?

Yes X No       

% Bare Ground in Herb Stratum 2 % Cover of Biotic Crust 0

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation is hydrophytic.



**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix			Redox Features				Texture	Remarks
	Color (moist)		%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 2	2.5YR	4.0 / 2	100		0			LOAM	
2 to 5	10YR	5.0 / 1	100		0			SILTY CLAY	
5 to 10	10YR	4.0 / 3	100		0			SILTY CLAY	
10 to 20	10YR	5.0 / 3	100		0			SILTY CLAY	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |  |
|--|--|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)                |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)            |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)        |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)        |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input checked="" type="checkbox"/> Depleted Matrix (F3) |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)         |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7)      |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)          |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)               |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |  |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- |   |
|---|
| <input type="checkbox"/> 1 cm Muck (A9) (LRR C)     |
| <input type="checkbox"/> 2 cm Muck (A10) (LRR B)    |
| <input type="checkbox"/> Reduced Vertic (F18)       |
| <input type="checkbox"/> Red Parent Material (TF2)  |
| <input type="checkbox"/> Other (Explain in Remarks) |

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes X No \_\_\_\_\_

## Remarks:

Soil profile meets F3 indicator.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input checked="" type="checkbox"/> Surface Water (A1)             | <input type="checkbox"/> Salt Crust (B11)                              |
| <input checked="" type="checkbox"/> High Water Table (A2)          | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input checked="" type="checkbox"/> Saturation (A3)                | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- |   |
|---|
| <input type="checkbox"/> Water Marks (B1) (Riverine)            |
| <input type="checkbox"/> Sediment Deposits (B2) (Riverine)      |
| <input type="checkbox"/> Drift Deposits (B3) (Riverine)         |
| <input type="checkbox"/> Drainage Patterns (B10)                |
| <input type="checkbox"/> Dry-Season Water Table (C2)            |
| <input type="checkbox"/> Crayfish Burrows (C8)                  |
| <input type="checkbox"/> Saturation Visible on Aerial Imag.(C9) |
| <input type="checkbox"/> Shallow Aquitard (D3)                  |
| <input checked="" type="checkbox"/> FAC-Neutral Test (D5)       |

**Field Observations:**

Surface Water Present?	Yes <u>X</u> No _____	Depth (inches):	<u>1</u>
Water Table Present?	Yes <u>X</u> No _____	Depth (inches):	<u>0</u>
Saturation Present?	Yes <u>X</u> No _____	Depth (inches):	<u>0</u>

(includes capillary fringe)

**Wetland Hydrology Present?** Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

Irrigated from north and east sides. Does not appear to have surface outlet.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 7/16/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 2 Sampling Point: 09-W-201207161355  
 Investigators: Mike Perkins Donovan Gross Section, Township, Range S 17 T 4 R 2  
 Landform (hillslope, terrace, etc.): Basin Local Relief (concave, convex, none): None Slope(%) 2  
 Subregion (LRR): LRR D Lat: 41.088407524 Long: -112.08600292 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Ford loam, 0 to 1 percent slopes NWI Classification: PEMA

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No        (If No, explain in Remarks)  
 Are Vegetation       , Soil       , Hydrology       , significantly disturbed? Are "Normal Circumstances" present? Yes X No         
 Are Vegetation       , Soil       , Hydrology       , naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No <u>      </u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No <u>      </u> Wetland ID: <u>09-IW-17</u>
Hydric Soil Present? Yes <u>X</u> No <u>      </u>	
Wetland Hydrology Present? Yes <u>X</u> No <u>      </u>	

Remarks:  
 "In" point for irrigated wetland.

## VEGETATION— Use scientific names of plants.

	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
<u>Tree Stratum</u>			
<u>Shrub Stratum</u>			
<u>Herb Stratum</u> (Plot size: <u>30 Ft</u> )			
Carex nebrascensis	25	Y	OBL
Carex praegracilis	20	Y	FACW
Eleocharis palustris	20	Y	OBL
Festuca pratensis	20	Y	FACU
Hordeum jubatum	15	N	FAC
Puccinellia nuttalliana	15	N	FACW
	115	=Total Cover	

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 3 (A)  
 Total Number of Dominant Species Across all Strata: 4 (B)  
 Percent of Dominant Species That are OBL, FACW, or FAC: 75.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>45</u>	x 1 = <u>45</u>
FACW species <u>35</u>	x 2 = <u>70</u>
FAC species <u>15</u>	x 3 = <u>45</u>
FACU species <u>20</u>	x 4 = <u>80</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>115</u> (A)	<u>240</u> (B)

Prevalence Index = B/A = 2.09

### Hydrophytic Vegetation Indicators:

       Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
       Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
       Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No       

% Bare Ground in Herb Stratum 5 % Cover of Biotic Crust       

Remarks: (Include photo numbers here or on a separate sheet.)  
 Vegetation is hydrophytic.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 3	10YR	6.0/ 3	100	0			SILTY CLAY	
3 to 18	10YR	7.0/ 1	100	0			CLAY	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |  |
|--|--|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)                |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)            |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)        |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)        |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input checked="" type="checkbox"/> Depleted Matrix (F3) |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)         |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7)      |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)          |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)               |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |  |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)  
☐ 2 cm Muck (A10) (LRR B)  
☐ Reduced Vertic (F18)  
☐ Red Parent Material (TF2)  
☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes X No \_\_\_\_\_

Remarks:  
Soil profile meets F3 indicator.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input checked="" type="checkbox"/> Surface Water (A1)             | <input type="checkbox"/> Salt Crust (B11)                              |
| <input checked="" type="checkbox"/> High Water Table (A2)          | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input checked="" type="checkbox"/> Saturation (A3)                | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)  
☐ Sediment Deposits (B2) (Riverine)  
☐ Drift Deposits (B3) (Riverine)  
☐ Drainage Patterns (B10)  
☐ Dry-Season Water Table (C2)  
☐ Crayfish Burrows (C8)  
☐ Saturation Visible on Aerial Imag.(C9)  
☐ Shallow Aquitard (D3)  
☒ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present?	Yes	<u>X</u>	No	_____	Depth (inches):	<u>1</u>
Water Table Present?	Yes	<u>X</u>	No	_____	Depth (inches):	<u>0</u>
Saturation Present?	Yes	<u>X</u>	No	_____	Depth (inches):	<u>0</u>

(includes capillary fringe)

**Wetland Hydrology Present?** Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Hydrology supplemented by irrigation. Appears to be isolated with no surface outlet.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 7/17/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 2 Sampling Point: 09-W-201207171300  
 Investigators: Mike Perkins Donovan Gross Section, Township, Range S 17 T 4 R 2  
 Landform (hillslope, terrace, etc.): Basin Local Relief (concave, convex, none): None Slope(%) 2  
 Subregion (LRR): LRR D Lat: 41.0868015204 Long: -112.086477869 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Ford loam, 0 to 1 percent slopes NWI Classification: PEMA

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No        (If No, explain in Remarks)  
 Are Vegetation       , Soil       , Hydrology       , significantly disturbed? Are "Normal Circumstances" present? Yes X No         
 Are Vegetation       , Soil       , Hydrology       , naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No <u>      </u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No <u>      </u>  <b>Wetland ID:</b> <u>09-IW-12</u>
Hydric Soil Present? Yes <u>X</u> No <u>      </u>	
Wetland Hydrology Present? Yes <u>X</u> No <u>      </u>	

Remarks:  
 Sampling point is a wetland.

## VEGETATION— Use scientific names of plants.

**Absolute % Cover** **Dominant Species** **Indicator Status**

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

Eleocharis palustris	20	Y	OBL
Hordeum jubatum	15	Y	FAC
Puccinellia nuttalliana	15	Y	FACW
	50	=Total Cover	

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across all Strata: 3 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>20</u>	x 1 = <u>20</u>
FACW species <u>15</u>	x 2 = <u>30</u>
FAC species <u>15</u>	x 3 = <u>45</u>
FACU species <u>0</u>	x 4 = <u>0</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>50</u> (A)	<u>95</u> (B)

Prevalence Index = B/A = 1.90

### Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
 Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No       

% Bare Ground in Herb Stratum 25 % Cover of Biotic Crust

Remarks: (Include photo numbers here or on a separate sheet.)  
 Vegetation is hydrophytic.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 12	2.5Y	6.0 / 1		0			CLAY	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |  |
|--|--|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)                |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)            |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)        |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)        |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input checked="" type="checkbox"/> Depleted Matrix (F3) |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)         |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7)      |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)          |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)               |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |  |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)  
☐ 2 cm Muck (A10) (LRR B)  
☐ Reduced Vertic (F18)  
☐ Red Parent Material (TF2)  
☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes X No \_\_\_\_\_

## Remarks:

Soil profile meets F3 indicator.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input checked="" type="checkbox"/> Surface Water (A1)             | <input type="checkbox"/> Salt Crust (B11)                              |
| <input checked="" type="checkbox"/> High Water Table (A2)          | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input checked="" type="checkbox"/> Saturation (A3)                | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)  
☐ Sediment Deposits (B2) (Riverine)  
☐ Drift Deposits (B3) (Riverine)  
☐ Drainage Patterns (B10)  
☐ Dry-Season Water Table (C2)  
☐ Crayfish Burrows (C8)  
☐ Saturation Visible on Aerial Imag.(C9)  
☐ Shallow Aquitard (D3)  
☒ FAC-Neutral Test (D5)

**Field Observations:**Surface Water Present? Yes X No \_\_\_\_\_ Depth (inches): 1Water Table Present? Yes X No \_\_\_\_\_ Depth (inches): 0Saturation Present? Yes X No \_\_\_\_\_ Depth (inches): 0

(includes capillary fringe)

**Wetland Hydrology Present?** Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

Wetland hydrology present.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 5/11/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 3 Sampling Point: 10-N-201205110817  
 Investigators: Ron Kass Paul Dawson Section, Township, Range S 16 T 4 R 2  
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): None Slope(%) 1  
 Subregion (LRR): LRR D Lat: 41.0813392957 Long: -112.074350692 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Warm Springs fine sandy loam, saline, sodic, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> <b>Wetland ID:</b> _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	

Remarks:  
 Non-wetland is irrigation confounding; no soils or hydrology.

## VEGETATION— Use scientific names of plants.

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
<u>Festuca pratensis</u>	<u>30</u>	<u>Y</u>	<u>FACU</u>
<u>Agrostis stolonifera</u>	<u>20</u>	<u>Y</u>	<u>FACW</u>
<u>Hordeum jubatum</u>	<u>20</u>	<u>Y</u>	<u>FAC</u>
<u>Puccinellia nuttalliana</u>	<u>15</u>	<u>N</u>	<u>FACW</u>
<u>Eleocharis palustris</u>	<u>5</u>	<u>N</u>	<u>OBL</u>
<u>Plantago lanceolata</u>	<u>1</u>	<u>N</u>	<u>FAC</u>
<u>Ranunculus sceleratus</u>	<u>1</u>	<u>N</u>	<u>OBL</u>
	<u>92</u>	<u>=Total Cover</u>	

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across all Strata: 3 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 66.7% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>6</u>	x 1 = <u>6</u>
FACW species <u>35</u>	x 2 = <u>70</u>
FAC species <u>21</u>	x 3 = <u>63</u>
FACU species <u>30</u>	x 4 = <u>120</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>92</u> (A)	<u>259</u> (B)

Prevalence Index = B/A = 2.82

### Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
 Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No \_\_\_\_\_

% Bare Ground in Herb Stratum 3 % Cover of Biotic Crust

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation is hydrophytic.



**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 18	10YR	3.0 / 2					CLAY LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)           |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)       |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)   |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)   |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input type="checkbox"/> Depleted Matrix (F3)       |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)     |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)          |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |   |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- |   |
|---|
| <input type="checkbox"/> 1 cm Muck (A9) (LRR C)     |
| <input type="checkbox"/> 2 cm Muck (A10) (LRR B)    |
| <input type="checkbox"/> Reduced Vertic (F18)       |
| <input type="checkbox"/> Red Parent Material (TF2)  |
| <input type="checkbox"/> Other (Explain in Remarks) |

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.☒ **Restrictive Layer (if observed):**Type: plow  
Depth (inches): 11**Hydric Soil Present?** Yes      No XRemarks:  
Soil profile does not meet criteria for hydric indicators.**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- |   |
|---|
| <input type="checkbox"/> Water Marks (B1) (Riverine)            |
| <input type="checkbox"/> Sediment Deposits (B2) (Riverine)      |
| <input type="checkbox"/> Drift Deposits (B3) (Riverine)         |
| <input type="checkbox"/> Drainage Patterns (B10)                |
| <input type="checkbox"/> Dry-Season Water Table (C2)            |
| <input type="checkbox"/> Crayfish Burrows (C8)                  |
| <input type="checkbox"/> Saturation Visible on Aerial Imag.(C9) |
| <input type="checkbox"/> Shallow Aquitard (D3)                  |
| <input checked="" type="checkbox"/> FAC-Neutral Test (D5)       |

**Field Observations:**

Surface Water Present?	Yes <u>    </u> No <u>X</u>	Depth (inches): <u>          </u>
Water Table Present?	Yes <u>    </u> No <u>X</u>	Depth (inches): <u>          </u>
Saturation Present?	Yes <u>    </u> No <u>X</u>	Depth (inches): <u>          </u>

(includes capillary fringe)

**Wetland Hydrology Present?** Yes      No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:  
Dry area lacks sufficient evidence for wetland hydrology.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 7/17/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 2 Sampling Point: 10-N-201207171350  
 Investigators: Mike Perkins Donovan Gross Section, Township, Range S 16 T 4 R 2  
 Landform (hillslope, terrace, etc.): Basin Local Relief (concave, convex, none): None Slope(%) 5  
 Subregion (LRR): LRR D Lat: 41.0866610914 Long: -112.078745011 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Ford loam, shallow water table, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes \_\_\_\_\_ No X (If No, explain in Remarks)  
 Are Vegetation X, Soil X, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes \_\_\_\_\_ No X  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>X</u>
Hydric Soil Present?	Yes _____ No <u>X</u>	
Wetland Hydrology Present?	Yes _____ No <u>X</u>	
Wetland ID: <u>10-W-31</u>		

Remarks:  
 Upland imported fill; extent of former wetland impossible to locate.

## VEGETATION— Use scientific names of plants.

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

<u>Bassia scoparia</u>	<u>30</u>	<u>Y</u>	<u>FAC</u>
<u>Melilotus officinalis</u>	<u>15</u>	<u>Y</u>	<u>FACU</u>
	<u>45</u>	=Total Cover	

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species  
 That are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant  
 Species Across all Strata: 2 (B)

Percent of Dominant Species  
 That are OBL, FACW, or FAC: 50.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>0</u>	x 2 = <u>0</u>
FAC species <u>30</u>	x 3 = <u>90</u>
FACU species <u>15</u>	x 4 = <u>60</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>45</u> (A)	<u>150</u> (B)

Prevalence Index = B/A = 3.33

### Hydrophytic Vegetation Indicators:

☐ Rapid Test for Hydrophytic Vegetation  
☐ Dominance Test > 50%  
☐ Prevalence Index ≤ 3.0  
☐ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
☐ Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic  
 Vegetation Present? Yes \_\_\_\_\_ No X

% Bare Ground in Herb Stratum 60 % Cover of Biotic Crust

Remarks: (Include photo numbers here or on a separate sheet.)

Weedy upland fill.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)           |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)       |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)   |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)   |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input type="checkbox"/> Depleted Matrix (F3)       |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)     |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)          |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |   |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)  
☐ 2 cm Muck (A10) (LRR B)  
☐ Reduced Vertic (F18)  
☐ Red Parent Material (TF2)  
☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No X**Remarks:**

Imported fill with gravel and asphalt, impenetrable with shovel.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)  
☐ Sediment Deposits (B2) (Riverine)  
☐ Drift Deposits (B3) (Riverine)  
☐ Drainage Patterns (B10)  
☐ Dry-Season Water Table (C2)  
☐ Crayfish Burrows (C8)  
☐ Saturation Visible on Aerial Imag.(C9)  
☐ Shallow Aquitard (D3)  
☐ FAC-Neutral Test (D5)

**Field Observations:**Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Water Table Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Saturation Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_

(includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

**Remarks:**

none

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 5/7/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 2 Sampling Point: 10-N-201209201525  
 Investigators: Trent Toler Mike Perkins Section, Township, Range S 16 T 4 R 2  
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): None Slope(%) 1  
 Subregion (LRR): LRR D Lat: 41.0828606746 Long: -112.075814676 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Ford loam, shallow water table, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <u>X</u> Hydric Soil Present? Yes _____ No <u>X</u> Wetland Hydrology Present? Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>X</u> Wetland ID: _____
---	--

Remarks:  
 Upland data point to the west and upslope of a wetland.

### VEGETATION— Use scientific names of plants.

<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
80	Y	UPL
15	N	OBL
95	=Total Cover	

#### Tree Stratum

#### Shrub Stratum

#### Herb Stratum (Plot size: 30 Ft )

<u>Thinopyrum ponticum</u>	80	Y	UPL
<u>Schoenoplectus pungens</u>	15	N	OBL

#### Vine Stratum

#### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 1 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 0.0% (A/B)

#### Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	<u>15</u>	x 1 =	<u>15</u>
FACW species	<u>0</u>	x 2 =	<u>0</u>
FAC species	<u>0</u>	x 3 =	<u>0</u>
FACU species	<u>0</u>	x 4 =	<u>0</u>
UPL species	<u>80</u>	x 5 =	<u>400</u>
Column Totals:	<u>95</u> (A)		<u>415</u> (B)

Prevalence Index = B/A= 4.37

#### Hydrophytic Vegetation Indicators:

☐ Rapid Test for Hydrophytic Vegetation  
☐ Dominance Test > 50%  
☐ Prevalence Index ≤ 3.0  
☐ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
☐ Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes \_\_\_\_\_ No X

% Bare Ground in Herb Stratum \_\_\_\_\_ % Cover of Biotic Crust \_\_\_\_\_

Remarks: (Include photo numbers here or on a separate sheet.)

Wheatgrass with some low vigor bulrush mixed in.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features					Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>			
0 to 11	10YR	4 / 2	100					SILTY CLAY LOAM	
11 to 20	10YR	3 / 1	98	Gley1 2.5/N	2	C	M	SANDY LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- ☐ Histosol (A1)  
☐ Histic Epipedon (A2)  
☐ Black Histic (A3)  
☐ Hydrogen Sulfide (A4)  
☐ Stratified Layers (A5) LRR C  
☐ 1 cm Muck (A9) LRR F D  
☐ Depleted Below Dark Surface (A11)  
☐ Thick Dark Surface (A12)  
☐ Sandy Mucky Mineral (S1)  
☐ Sandy Gleyed Matrix (S4)

- ☐ Sandy Redox (S5)  
☐ Stripped Matrix (S6)  
☐ Loamy Mucky Mineral (F1)  
☐ Loamy Gleyed Matrix (F2)  
☐ Depleted Matrix (F3)  
☐ Redox Dark Surface (F6)  
☐ Depleted Dark Surface (F7)  
☐ Redox Depressions (F8)  
☐ Vernal Pools (F9)

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)  
☐ 2 cm Muck (A10) (LRR B)  
☐ Reduced Vertic (F18)  
☐ Red Parent Material (TF2)  
☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No X

## Remarks:

Redox in 3/1 soil too deep to meet any hydric indicators.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)  
☐ High Water Table (A2)  
☐ Saturation (A3)  
☐ Water Marks (B1) (Nonriverine)  
☐ Sediment Deposits (B2) (Nonriverine)  
☐ Drift Deposits (B3) (Nonriverine)  
☐ Surface Soil Cracks (B6)  
☐ Inundation Visible on Aerial Imagery (B7)  
☐ Water-Stained Leaves (B9)  
☐ Salt Crust (B11)  
☐ Biotic Crust (B12)  
☐ Aquatic Fauna (B13)  
☐ Hydrogen Sulfide Odor (C1)  
☐ Oxidized Rhizospheres along Living Roots (C3)  
☐ Presence of Reduced Iron (C4)  
☐ Recent Iron Reduction in Tilled Soils (C6)  
☐ Thin Muck Surface (C7)  
☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)  
☐ Sediment Deposits (B2) (Riverine)  
☐ Drift Deposits (B3) (Riverine)  
☐ Drainage Patterns (B10)  
☒ Dry-Season Water Table (C2)  
☐ Crayfish Burrows (C8)  
☐ Saturation Visible on Aerial Imag.(C9)  
☐ Shallow Aquitard (D3)  
☐ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_  
Water Table Present? Yes X No \_\_\_\_\_ Depth (inches): 16  
Saturation Present? Yes X No \_\_\_\_\_ Depth (inches): 14  
(includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

Saturation too deep, and water table too deep to be a primary indicator. Given the time of year (September), water table could satisfy the secondary indicator, C2.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 5/7/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 2 Sampling Point: 10-N-201209251151  
 Investigators: Trent Toler Nate Nichols Section, Township, Range S 16 T 4 R 2  
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): None Slope(%) 0  
 Subregion (LRR): LRR D Lat: 41.0839249802 Long: -112.077016396 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Ford loam, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland?	Yes _____ No <u>X</u>
Hydric Soil Present?	Yes _____ No <u>X</u>		
Wetland Hydrology Present?	Yes _____ No <u>X</u>		Wetland ID: _____

Remarks:  
 Meadow to the west of a Phragmites marsh. Failed to meet any of the 3 parameters as a wetland.

## VEGETATION— Use scientific names of plants.

**Absolute % Cover** **Dominant Species** **Indicator Status**

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

Distichlis spicata	25	Y	FAC
Thinopyrum ponticum	25	Y	UPL
Melilotus officinalis	15	N	FACU
Medicago sativa	10	N	UPL
Symphyotrichum chilense	10	N	FAC
Phragmites australis	5	N	FACW
Suaeda calceoliformis	5	N	FACW
	95	=Total Cover	

### Vine Stratum

## Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across all Strata: 2 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 50.0% (A/B)

## Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>10</u>	x 2 = <u>20</u>
FAC species <u>35</u>	x 3 = <u>105</u>
FACU species <u>15</u>	x 4 = <u>60</u>
UPL species <u>35</u>	x 5 = <u>175</u>
Column Totals: <u>95</u> (A)	<u>360</u> (B)

Prevalence Index = B/A = 3.79

## Hydrophytic Vegetation Indicators:

\_\_\_\_\_ Rapid Test for Hydrophytic Vegetation  
 \_\_\_\_\_ Dominance Test > 50%  
 \_\_\_\_\_ Prevalence Index ≤ 3.0  
 \_\_\_\_\_ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 \_\_\_\_\_ Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes \_\_\_\_\_ No X

% Bare Ground in Herb Stratum 3 % Cover of Biotic Crust \_\_\_\_\_

Remarks: (Include photo numbers here or on a separate sheet.)  
 Mixed meadow community of wheatgrass, salt grass, various weeds, and a few wetland species.



**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 20	10YR	4 / 2	100				SANDY LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)           |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)       |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)   |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)   |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input type="checkbox"/> Depleted Matrix (F3)       |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)     |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)          |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |   |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)  
☐ 2 cm Muck (A10) (LRR B)  
☐ Reduced Vertic (F18)  
☐ Red Parent Material (TF2)  
☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No X

## Remarks:

Fails to meet any hydric indicators; sandy and with a consistent color.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)  
☐ Sediment Deposits (B2) (Riverine)  
☐ Drift Deposits (B3) (Riverine)  
☐ Drainage Patterns (B10)  
☐ Dry-Season Water Table (C2)  
☐ Crayfish Burrows (C8)  
☐ Saturation Visible on Aerial Imag.(C9)  
☐ Shallow Aquitard (D3)  
☐ FAC-Neutral Test (D5)

**Field Observations:**Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Water Table Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Saturation Present? Yes X No \_\_\_\_\_ Depth (inches): 17

(includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

Saturation too deep, no wetland hydrology observed.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 5/7/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 2 Sampling Point: 10-N-201209251225  
 Investigators: Trent Toler Nate Nichols Section, Township, Range S 16 T 4 R 2  
 Landform (hillslope, terrace, etc.): Terrace Local Relief (concave, convex, none): Convex Slope(%) 0  
 Subregion (LRR): LRR D Lat: 41.0856766676 Long: -112.078224605 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Ford loam, shallow water table, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil X, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes \_\_\_\_\_ No X  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> Wetland ID: _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	

Remarks:  
 Upland area of older, imported fill, possibly a berm, covered in weeds.

## VEGETATION— Use scientific names of plants.

	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
<u>Tree Stratum</u>			
<u>Shrub Stratum</u>			
<u>Herb Stratum</u> (Plot size: <u>30 Ft</u> )			
<u>Lepidium latifolium</u>	<u>80</u>	<u>Y</u>	<u>FAC</u>
<u>Atriplex micrantha</u>	<u>25</u>	<u>Y</u>	<u>UPL</u>
<u>Dipsacus fullonum</u>	<u>3</u>	<u>N</u>	<u>FAC</u>
	<u>108</u>	<u>=Total Cover</u>	
<u>Vine Stratum</u>			

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 1 (A)  
 Total Number of Dominant Species Across all Strata: 2 (B)  
 Percent of Dominant Species That are OBL, FACW, or FAC: 50.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>0</u>	x 2 = <u>0</u>
FAC species <u>83</u>	x 3 = <u>249</u>
FACU species <u>0</u>	x 4 = <u>0</u>
UPL species <u>25</u>	x 5 = <u>125</u>
Column Totals: <u>108</u> (A)	<u>374</u> (B)
Prevalence Index = B/A= <u>3.46</u>	

### Hydrophytic Vegetation Indicators:

☐ Rapid Test for Hydrophytic Vegetation  
☐ Dominance Test > 50%  
☐ Prevalence Index ≤ 3.0  
☐ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
☐ Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

% Bare Ground in Herb Stratum 0 % Cover of Biotic Crust \_\_\_\_\_

**Hydrophytic Vegetation Present?** Yes \_\_\_\_\_ No X

Remarks: (Include photo numbers here or on a separate sheet.)

Weedy vegetation community.

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix			Redox Features				Texture	Remarks
	Color (moist)		%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 9	10YR	4 / 2	95	10YR 4/1	5	D	M	SANDY LOAM	likely mixing of fill, not redox
9 to 14	10YR	3 / 1	70	10YR 4/2	30	D	M	SANDY LOAM	likely mixing of fill, not redox
14 to 18	10YR	3 / 1	100					SANDY LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.      <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators:**

☐ Histosol (A1)☐ Histic Epipedon (A2)☐ Black Histic (A3)☐ Hydrogen Sulfide (A4)☐ Stratified Layers (A5) LRR C☐ 1 cm Muck (A9) LRR F D☐ Depleted Below Dark Surface (A11)☐ Thick Dark Surface (A12)☐ Sandy Mucky Mineral (S1)☐ Sandy Gleyed Matrix (S4)

☐ Sandy Redox (S5)☐ Stripped Matrix (S6)☐ Loamy Mucky Mineral (F1)☐ Loamy Gleyed Matrix (F2)☐ Depleted Matrix (F3)☐ Redox Dark Surface (F6)☐ Depleted Dark Surface (F7)☐ Redox Depressions (F8)☐ Vernal Pools (F9)

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

☐ 1 cm Muck (A9) (LRR C)☐ 2 cm Muck (A10) (LRR B)☐ Reduced Vertic (F18)☐ Red Parent Material (TF2)☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: Depth (inches):

**Hydric Soil Present?**      Yes       No 

X

Remarks:

No redox in 4/2 layers, so failed to meet any hydric indicators. Different colors are likely due to the mixed fill used in this location.

HYDROLOGY

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

☐ Surface Water (A1)☐ High Water Table (A2)☐ Saturation (A3)☐ Water Marks (B1) (Nonriverine)☐ Sediment Deposits (B2) (Nonriverine)☐ Drift Deposits (B3) (Nonriverine)☐ Surface Soil Cracks (B6)☐ Inundation Visible on Aerial Imagery (B7)☐ Water-Stained Leaves (B9)

☐ Salt Crust (B11)☐ Biotic Crust (B12)☐ Aquatic Fauna (B13)☐ Hydrogen Sulfide Odor (C1)☐ Oxidized Rhizospheres along Living Roots (C3)☐ Presence of Reduced Iron (C4)☐ Recent Iron Reduction in Tilled Soils (C6)☐ Thin Muck Surface (C7)☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

☐ Water Marks (B1) (Riverine)☐ Sediment Deposits (B2) (Riverine)☐ Drift Deposits (B3) (Riverine)☐ Drainage Patterns (B10)☐ Dry-Season Water Table (C2)☐ Crayfish Burrows (C8)☐ Saturation Visible on Aerial Imag.(C9)☐ Shallow Aquitard (D3)☐ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present?      Yes       No 

X

      Depth (inches):

Water Table Present?      Yes       No 

X

      Depth (inches):

Saturation Present?      Yes       No 

X

      Depth (inches):

(includes capillary fringe)

**Wetland Hydrology Present?**      Yes       No 

X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No wetland hydrology observed, only damp below 14 in.

US Army Corps of Engineers

HDR

Arid West – Version 2.0

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 5/7/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 2 Sampling Point: 10-N-201209251346  
 Investigators: Trent Toler Nate Nichols Section, Township, Range S 16 T 4 R 2  
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): Convex Slope(%) 0  
 Subregion (LRR): LRR D Lat: 41.0838061536 Long: -112.076284849 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Ford loam, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland?	Yes _____ No <u>X</u>
Hydric Soil Present?	Yes _____ No <u>X</u>		
Wetland Hydrology Present?	Yes _____ No <u>X</u>		Wetland ID: _____

Remarks:  
 Upland grassy area with some wetland species, but failed all three parameters as a wetland.

## VEGETATION— Use scientific names of plants.

Absolute  
% Cover

Dominant  
Species

Indicator  
Status

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

Phalaris arundinacea	75	Y	FACW
Atriplex micrantha	25	Y	UPL
Phragmites australis	5	N	FACW
	105	=Total Cover	

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species  
That are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant  
Species Across all Strata: 2 (B)

Percent of Dominant Species  
That are OBL, FACW, or FAC: 50.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>80</u>	x 2 = <u>160</u>
FAC species <u>0</u>	x 3 = <u>0</u>
FACU species <u>0</u>	x 4 = <u>0</u>
UPL species <u>25</u>	x 5 = <u>125</u>
Column Totals: <u>105</u> (A)	<u>285</u> (B)

Prevalence Index = B/A= 2.71

### Hydrophytic Vegetation Indicators:

\_\_\_\_ Rapid Test for Hydrophytic Vegetation  
 \_\_\_\_ Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
 \_\_\_\_ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 \_\_\_\_ Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic  
Vegetation Present? Yes \_\_\_\_\_ No X

% Bare Ground in Herb Stratum 0 % Cover of Biotic Crust \_\_\_\_\_

Remarks: (Include photo numbers here or on a separate sheet.)  
 Vegetation community failed the dominance test, therefore it is not hydrophytic.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)**

Depth (inches)	Matrix		%	Redox Features				Texture	Remarks
	Color (moist)			Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 18	10YR	3 / 2	97	10YR 3/3	3	C	M	SILTY CLAY LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)           |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)       |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)   |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)   |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input type="checkbox"/> Depleted Matrix (F3)       |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)     |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)          |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |   |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- |   |
|---|
| <input type="checkbox"/> 1 cm Muck (A9) (LRR C)     |
| <input type="checkbox"/> 2 cm Muck (A10) (LRR B)    |
| <input type="checkbox"/> Reduced Vertic (F18)       |
| <input type="checkbox"/> Red Parent Material (TF2)  |
| <input type="checkbox"/> Other (Explain in Remarks) |

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No X

## Remarks:

Failed to meet the criteria for any hydric indicator. The 3/3 concentrations are faint.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- |   |
|---|
| <input type="checkbox"/> Water Marks (B1) (Riverine)            |
| <input type="checkbox"/> Sediment Deposits (B2) (Riverine)      |
| <input type="checkbox"/> Drift Deposits (B3) (Riverine)         |
| <input type="checkbox"/> Drainage Patterns (B10)                |
| <input type="checkbox"/> Dry-Season Water Table (C2)            |
| <input type="checkbox"/> Crayfish Burrows (C8)                  |
| <input type="checkbox"/> Saturation Visible on Aerial Imag.(C9) |
| <input type="checkbox"/> Shallow Aquitard (D3)                  |
| <input type="checkbox"/> FAC-Neutral Test (D5)                  |

**Field Observations:**Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Water Table Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Saturation Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_

(includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

No wetland hydrology observed.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 5/10/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 2 Sampling Point: 10-W-201205101412  
 Investigators: Ron Kass Paul Dawson Section, Township, Range S 16 T 4 R 2  
 Landform (hillslope, terrace, etc.): Basin Local Relief (concave, convex, none): None Slope(%) 2  
 Subregion (LRR): LRR D Lat: 41.0865000282 Long: -112.078628722 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Ford loam, shallow water table, 0 to 1 percent slopes NWI Classification: PEMC  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No        (If No, explain in Remarks)  
 Are Vegetation       , Soil       , Hydrology       , significantly disturbed? Are "Normal Circumstances" present? Yes        No X  
 Are Vegetation       , Soil       , Hydrology       , naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No <u>      </u> Hydric Soil Present? Yes <u>X</u> No <u>      </u> Wetland Hydrology Present? Yes <u>X</u> No <u>      </u>	Is the Sampled Area within a Wetland? Yes <u>X</u> No <u>      </u> Wetland ID: <u>10-W-43</u>
Remarks: Wetland point.	

### VEGETATION— Use scientific names of plants.

<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
60	Y	FACW
20	Y	FACW
10	N	FACU
5	N	OBL
5	N	OBL
100	=Total Cover	

#### Tree Stratum

#### Shrub Stratum

#### Herb Stratum (Plot size: 30 Ft )

Juncus arcticus	60	Y	FACW
Phragmites australis	20	Y	FACW
Festuca arundinacea	10	N	FACU
Eleocharis palustris	5	N	OBL
Schoenoplectus pungens	5	N	OBL

#### Vine Stratum

#### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 2 (A)  
 Total Number of Dominant Species Across all Strata: 2 (B)  
 Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

#### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>10</u>	x 1 = <u>10</u>
FACW species <u>80</u>	x 2 = <u>160</u>
FAC species <u>0</u>	x 3 = <u>0</u>
FACU species <u>10</u>	x 4 = <u>40</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>100</u> (A)	<u>210</u> (B)
Prevalence Index = B/A= <u>2.10</u>	

#### Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
 Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No       

% Bare Ground in Herb Stratum        % Cover of Biotic Crust       

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation is hydrophytic.



**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
to	/		10YR 4/2	3	D	M		
to	/							
0 to 18	10YR 3.0/ 2	95	Gley1 2.5/N	2	C	M	SILT LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)                   |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)               |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)           |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)           |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input type="checkbox"/> Depleted Matrix (F3)               |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input checked="" type="checkbox"/> Redox Dark Surface (F6) |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7)         |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)             |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)                  |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |   |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)  
☐ 2 cm Muck (A10) (LRR B)  
☐ Reduced Vertic (F18)  
☐ Red Parent Material (TF2)  
☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes X No \_\_\_\_\_

## Remarks:

Soil profile meets F6 indicator.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input checked="" type="checkbox"/> High Water Table (A2)          | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input checked="" type="checkbox"/> Saturation (A3)                | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)  
☐ Sediment Deposits (B2) (Riverine)  
☐ Drift Deposits (B3) (Riverine)  
☐ Drainage Patterns (B10)  
☐ Dry-Season Water Table (C2)  
☐ Crayfish Burrows (C8)  
☐ Saturation Visible on Aerial Imag.(C9)  
☐ Shallow Aquitard (D3)  
☒ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present?	Yes _____ No <u>X</u>	Depth (inches): _____
Water Table Present?	Yes <u>X</u> No _____	Depth (inches): <u>9</u>
Saturation Present?	Yes <u>X</u> No _____	Depth (inches): <u>6</u>

(includes capillary fringe)

**Wetland Hydrology Present?** Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

Wetland hydrology present.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 5/11/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 2 Sampling Point: 10-W-201205110847  
 Investigators: Ron Kass Paul Dawson Section, Township, Range S 16 T 4 R 2  
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): Concave Slope(%) 1  
 Subregion (LRR): LRR D Lat: 41.082960246 Long: -112.075685653 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Ford loam, shallow water table, 0 to 1 percent slopes NWI Classification: PEMC

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No        (If No, explain in Remarks)  
 Are Vegetation       , Soil       , Hydrology       , significantly disturbed? Are "Normal Circumstances" present? Yes X No         
 Are Vegetation       , Soil       , Hydrology       , naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No <u>      </u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No <u>      </u> Wetland ID: <u>10-W-51</u>
Hydric Soil Present? Yes <u>X</u> No <u>      </u>	
Wetland Hydrology Present? Yes <u>X</u> No <u>      </u>	

Remarks:  
 Reed-filled constructed basin with pedestrian paved trail.

## VEGETATION— Use scientific names of plants.

	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
<u>Tree Stratum</u>			
<u>Shrub Stratum</u>			
<u>Herb Stratum</u> (Plot size: <u>30 Ft</u> )			
<u>Phragmites australis</u>	<u>100</u>	<u>Y</u>	<u>FACW</u>
	<u>100</u>	<u>=Total Cover</u>	
<u>Vine Stratum</u>			

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 1 (A)  
 Total Number of Dominant Species Across all Strata: 1 (B)  
 Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

### Prevalence Index Worksheet:

	Total % Cover of:	Multiply by:
OBL species	<u>0</u>	x 1 = <u>0</u>
FACW species	<u>100</u>	x 2 = <u>200</u>
FAC species	<u>0</u>	x 3 = <u>0</u>
FACU species	<u>0</u>	x 4 = <u>0</u>
UPL species	<u>0</u>	x 5 = <u>0</u>
Column Totals:	<u>100</u> (A)	<u>200</u> (B)
Prevalence Index = B/A= <u>2.00</u>		

### Hydrophytic Vegetation Indicators:

       Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
       Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
       Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No       

% Bare Ground in Herb Stratum 0 % Cover of Biotic Crust       

Remarks: (Include photo numbers here or on a separate sheet.)

Emergent marsh Vegetation

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		%	Redox Features				Texture	Remarks
	Color (moist)			Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 7	10YR	3 / 2	50	10YR 5/2	45	D	M	CLAY LOAM	
0 to 7	/			10YR 2/1	5	C	M		Mn in 0-7 in layer
7 to 15	10YR	2 / 1	100					CLAY LOAM	
15 to 18	10YR	2 / 2	100					SANDY LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |  |
|--|--|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)                |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)            |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)        |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)        |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input checked="" type="checkbox"/> Depleted Matrix (F3) |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)         |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7)      |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)          |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)               |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |  |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)  
☐ 2 cm Muck (A10) (LRR B)  
☐ Reduced Vertic (F18)  
☐ Red Parent Material (TF2)  
☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes X No \_\_\_\_\_

## Remarks:

Soil meets criteria for hydric indicator F3, and potentially indicator F7.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input checked="" type="checkbox"/> Surface Water (A1)             | <input type="checkbox"/> Salt Crust (B11)                              |
| <input checked="" type="checkbox"/> High Water Table (A2)          | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input checked="" type="checkbox"/> Saturation (A3)                | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)  
☐ Sediment Deposits (B2) (Riverine)  
☐ Drift Deposits (B3) (Riverine)  
☐ Drainage Patterns (B10)  
☐ Dry-Season Water Table (C2)  
☐ Crayfish Burrows (C8)  
☐ Saturation Visible on Aerial Imag. (C9)  
☐ Shallow Aquitard (D3)  
☒ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present?	Yes	<u>X</u>	No	_____	Depth (inches):	<u>2</u>
Water Table Present?	Yes	<u>X</u>	No	_____	Depth (inches):	<u>0</u>
Saturation Present?	Yes	<u>X</u>	No	_____	Depth (inches):	<u>0</u>

(includes capillary fringe)

**Wetland Hydrology Present?** Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

Wetland hydrology observed based on surface water, high water table, and saturation.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 5/7/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 2 Sampling Point: 10-W-201209251244  
 Investigators: Trent Toler Nate Nichols Section, Township, Range S 16 T 4 R 2  
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): None Slope(%) 0  
 Subregion (LRR): LRR D Lat: 41.0856355023 Long: -112.078201616 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Ford loam, shallow water table, 0 to 1 percent slopes NWI Classification: PEMC  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No        (If No, explain in Remarks)  
 Are Vegetation       , Soil       , Hydrology       , significantly disturbed? Are "Normal Circumstances" present? Yes X No         
 Are Vegetation       , Soil       , Hydrology       , naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No <u>      </u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No <u>      </u> <b>Wetland ID:</b> <u>10-W-43</u>
Hydric Soil Present? Yes <u>X</u> No <u>      </u>	
Wetland Hydrology Present? Yes <u>X</u> No <u>      </u>	

Remarks:  
 Emergent marsh wetland. Soils not sampled due to strong obligate veg. Assumed Hydric Soils present

## VEGETATION— Use scientific names of plants.

	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
<u>Tree Stratum</u>			
<u>Shrub Stratum</u>			
<u>Herb Stratum</u> (Plot size: <u>30 Ft</u> )			
Schoenoplectus pungens	100	Y	OBL
Eleocharis palustris	3	N	OBL
Distichlis spicata	1	N	FAC
	104	=Total Cover	
<u>Vine Stratum</u>			

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 1 (A)  
 Total Number of Dominant Species Across all Strata: 1 (B)  
 Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>103</u>	x 1 = <u>103</u>
FACW species <u>0</u>	x 2 = <u>0</u>
FAC species <u>1</u>	x 3 = <u>3</u>
FACU species <u>0</u>	x 4 = <u>0</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>104</u> (A)	<u>106</u> (B)

Prevalence Index = B/A = 1.02

### Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
 Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No       

% Bare Ground in Herb Stratum 0 % Cover of Biotic Crust

Remarks: (Include photo numbers here or on a separate sheet.)

Emergent marsh community of bulrush and spike-rush.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)           |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)       |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)   |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)   |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input type="checkbox"/> Depleted Matrix (F3)       |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)     |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)          |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |   |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)  
☐ 2 cm Muck (A10) (LRR B)  
☐ Reduced Vertic (F18)  
☐ Red Parent Material (TF2)  
☒ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes X No \_\_\_\_\_**Remarks:**

Assumed hydric, soil data was not collected due to saturation to the surface in the dry time of year and 100% dominance by obligate vegetation.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input checked="" type="checkbox"/> High Water Table (A2)          | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input checked="" type="checkbox"/> Saturation (A3)                | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)  
☐ Sediment Deposits (B2) (Riverine)  
☐ Drift Deposits (B3) (Riverine)  
☐ Drainage Patterns (B10)  
☐ Dry-Season Water Table (C2)  
☐ Crayfish Burrows (C8)  
☐ Saturation Visible on Aerial Imag.(C9)  
☐ Shallow Aquitard (D3)  
☒ FAC-Neutral Test (D5)

**Field Observations:**Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Water Table Present? Yes X No \_\_\_\_\_ Depth (inches): 0Saturation Present? Yes X No \_\_\_\_\_ Depth (inches): 0

(includes capillary fringe)

**Wetland Hydrology Present?** Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

**Remarks:**

Wetland hydrology present. Fully saturated to the surface, but no standing water in the vicinity of the data point.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 5/11/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 1 Sampling Point: 08-N-201205110856  
 Investigators: Donovan Gross Brian Nicholson Section, Township, Range S 8 T 4 R 2  
 Landform (hillslope, terrace, etc.): Basin Local Relief (concave, convex, none): Concave Slope(%) 20  
 Subregion (LRR): LRR D Lat: 41.0975649465 Long: -112.08656173 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Ford loam, shallow water table, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil X, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes \_\_\_\_\_ No X  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> <b>Wetland ID:</b> _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks:  
 Sampling point does not meet wetland criteria because it lacks evidence of hydric soils.

## VEGETATION— Use scientific names of plants.

	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
<u>Tree Stratum</u> (Plot size: <u>30 Ft</u> )			
<u>Elaeagnus angustifolia</u>	<u>5</u>	<u>Y</u>	<u>FAC</u>
	<u>5</u> =Total Cover		
<u>Shrub Stratum</u>			
<u>Herb Stratum</u> (Plot size: <u>30 Ft</u> )			
<u>Elymus repens</u>	<u>30</u>	<u>Y</u>	<u>FAC</u>
<u>Thinopyrum ponticum</u>	<u>20</u>	<u>Y</u>	<u>UPL</u>
<u>Lactuca serriola</u>	<u>10</u>	<u>N</u>	<u>FACU</u>
<u>Carex praegracilis</u>	<u>5</u>	<u>N</u>	<u>FACW</u>
<u>Chenopodium album</u>	<u>5</u>	<u>N</u>	<u>FACU</u>
<u>Conium maculatum</u>	<u>5</u>	<u>N</u>	<u>FACW</u>
<u>Juncus arcticus</u>	<u>5</u>	<u>N</u>	<u>FACW</u>
	<u>80</u> =Total Cover		
<u>Vine Stratum</u>			

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 2 (A)  
 Total Number of Dominant Species Across all Strata: 3 (B)  
 Percent of Dominant Species That are OBL, FACW, or FAC: 66.7% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>15</u>	x 2 = <u>30</u>
FAC species <u>35</u>	x 3 = <u>105</u>
FACU species <u>15</u>	x 4 = <u>60</u>
UPL species <u>20</u>	x 5 = <u>100</u>
Column Totals: <u>85</u> (A)	<u>295</u> (B)

Prevalence Index = B/A= 3.47

### Hydrophytic Vegetation Indicators:

\_\_\_\_ Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
 \_\_\_\_ Prevalence Index ≤ 3.0  
 \_\_\_\_ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 \_\_\_\_ Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No \_\_\_\_\_

% Bare Ground in Herb Stratum 15 % Cover of Biotic Crust 0

Remarks: (Include photo numbers here or on a separate sheet.)  
 Mix of weedy facultative species with wheatgrass and some hydrophytic species. Passes the Dominance Test.



**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)**

Depth (inches)	Matrix			Redox Features				Texture	Remarks
	Color (moist)		%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 4	10YR	4.0 / 2	100		0			SANDY CLAY LOAM	
4 to 14	10YR	4.0 / 2	100		0				Appears to be fill material

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- ☐ Histosol (A1)  
☐ Histic Epipedon (A2)  
☐ Black Histic (A3)  
☐ Hydrogen Sulfide (A4)  
☐ Stratified Layers (A5) LRR C  
☐ 1 cm Muck (A9) LRR F D  
☐ Depleted Below Dark Surface (A11)  
☐ Thick Dark Surface (A12)  
☐ Sandy Mucky Mineral (S1)  
☐ Sandy Gleyed Matrix (S4)

- ☐ Sandy Redox (S5)  
☐ Stripped Matrix (S6)  
☐ Loamy Mucky Mineral (F1)  
☐ Loamy Gleyed Matrix (F2)  
☐ Depleted Matrix (F3)  
☐ Redox Dark Surface (F6)  
☐ Depleted Dark Surface (F7)  
☐ Redox Depressions (F8)  
☐ Vernal Pools (F9)

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)  
☐ 2 cm Muck (A10) (LRR B)  
☐ Reduced Vertic (F18)  
☐ Red Parent Material (TF2)  
☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.☒ **Restrictive Layer (if observed):**Type: mineralDepth (inches): 4**Hydric Soil Present?** Yes        No **X****Remarks:**

No hydric indicators observed. Area appears disturbed but disturbance activity does not appear to be recent.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)  
☒ High Water Table (A2)  
☒ Saturation (A3)  
☐ Water Marks (B1) (Nonriverine)  
☐ Sediment Deposits (B2) (Nonriverine)  
☐ Drift Deposits (B3) (Nonriverine)  
☐ Surface Soil Cracks (B6)  
☐ Inundation Visible on Aerial Imagery (B7)  
☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)  
☐ Biotic Crust (B12)  
☐ Aquatic Fauna (B13)  
☐ Hydrogen Sulfide Odor (C1)  
☐ Oxidized Rhizospheres along Living Roots (C3)  
☐ Presence of Reduced Iron (C4)  
☐ Recent Iron Reduction in Tilled Soils (C6)  
☐ Thin Muck Surface (C7)  
☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)  
☐ Sediment Deposits (B2) (Riverine)  
☐ Drift Deposits (B3) (Riverine)  
☐ Drainage Patterns (B10)  
☐ Dry-Season Water Table (C2)  
☐ Crayfish Burrows (C8)  
☐ Saturation Visible on Aerial Imag.(C9)  
☐ Shallow Aquitard (D3)  
☐ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present? Yes        No **X** Depth (inches):         
 Water Table Present? Yes **X** No        Depth (inches): 12  
 Saturation Present? Yes **X** No        Depth (inches): 10  
 (includes capillary fringe)

**Wetland Hydrology Present?** Yes **X** No       

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

**Remarks:**

Low spot by channel, high water table and saturation present.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 5/25/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 1 Sampling Point: 08-N-201205251047  
 Investigators: Trent Toler Section, Township, Range S 9 T 4 R 2  
 Landform (hillslope, terrace, etc.): Terrace Local Relief (concave, convex, none): None Slope(%) 2  
 Subregion (LRR): LRR D Lat: 41.0941529201 Long: -112.083285728 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Ford loam, shallow water table, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil X, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>X</u>
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes <u>X</u> No _____	
Wetland ID: _____	

Remarks:  
 Weedy upland area contains gravelly fill material over 3 feet deep.

## VEGETATION - Use scientific names of plants.

### Tree Stratum (Plot size: 30 Ft )

	Absolute % Cover	Dominant Species	Indicator Status
Prunus americana	10	Y	FACU
Elaeagnus angustifolia	5	Y	FAC
Populus deltoides	5	Y	FAC
20	=Total Cover		

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

	Absolute % Cover	Dominant Species	Indicator Status
Thinopyrum ponticum	50	Y	UPL
Bromus tectorum	25	Y	UPL
Ambrosia artemisiifolia	5	N	FACU
Medicago sativa	5	N	UPL
Tragopogon dubius	5	N	UPL
Conium maculatum	3	N	FACW
Lactuca serriola	3	N	FACU
96	=Total Cover		

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 2 (A)  
 Total Number of Dominant Species Across all Strata: 5 (B)  
 Percent of Dominant Species That are OBL, FACW, or FAC: 40.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>3</u>	x 2 = <u>6</u>
FAC species <u>10</u>	x 3 = <u>30</u>
FACU species <u>18</u>	x 4 = <u>72</u>
UPL species <u>85</u>	x 5 = <u>425</u>
Column Totals: <u>116</u> (A)	<u>533</u> (B)

Prevalence Index = B/A = 4.59

### Hydrophytic Vegetation Indicators:

☐ Rapid Test for Hydrophytic Vegetation  
☐ Dominance Test > 50%  
☐ Prevalence Index ≤ 3.0  
☐ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
☐ Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes \_\_\_\_\_ No X

% Bare Ground in Herb Stratum 5 % Cover of Biotic Crust

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation is not hydrophytic.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 14	10YR	4.0 / 2					CLAY LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) LRR C
- ☐ 1 cm Muck (A9) LRR F D
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)

- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)
- ☐ 2 cm Muck (A10) (LRR B)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No X**Remarks:**

No indicators. Soil is hard, compacted fill with rocks and gravel; very hard and dry below 14 inches.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☒ High Water Table (A2)
- ☒ Saturation (A3)
- ☐ Water Marks (B1) (Nonriverine)
- ☐ Sediment Deposits (B2) (Nonriverine)
- ☐ Drift Deposits (B3) (Nonriverine)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)
- ☐ Sediment Deposits (B2) (Riverine)
- ☐ Drift Deposits (B3) (Riverine)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

**Field Observations:**Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Water Table Present? Yes X No \_\_\_\_\_ Depth (inches): 12Saturation Present? Yes X No \_\_\_\_\_ Depth (inches): 8

(includes capillary fringe)

**Wetland Hydrology Present?** Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

**Remarks:**

Sampling point meets criteria for wetland hydrology.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 5/25/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 1 Sampling Point: 08-N-201205251455  
 Investigators: Trent Toler Section, Township, Range S 9 T 4 R 2  
 Landform (hillslope, terrace, etc.): Terrace Local Relief (concave, convex, none): Convex Slope(%) 1  
 Subregion (LRR): LRR D Lat: 41.0933752392 Long: -112.082447108 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Ford loam, shallow water table, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation X, Soil X, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> <b>Wetland ID:</b> _____
Hydric Soil Present?	Yes _____ No <u>X</u>	
Wetland Hydrology Present?	Yes _____ No <u>X</u>	

Remarks:  
 Upland area of fill and pavement; unable to dig a pit in area raised 3-4 ft above wetland.

## VEGETATION— Use scientific names of plants.

**Absolute % Cover** **Dominant Species** **Indicator Status**

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

Thinopyrum ponticum	60	Y	UPL
Bromus tectorum	30	Y	UPL
Lactuca serriola	3	N	FACU
Melilotus officinalis	2	N	FACU
	95	=Total Cover	

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 0 (A)  
 Total Number of Dominant Species Across all Strata: 2 (B)  
 Percent of Dominant Species That are OBL, FACW, or FAC: 0.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>0</u>	x 2 = <u>0</u>
FAC species <u>0</u>	x 3 = <u>0</u>
FACU species <u>5</u>	x 4 = <u>20</u>
UPL species <u>90</u>	x 5 = <u>450</u>
Column Totals: <u>95</u> (A)	<u>470</u> (B)
Prevalence Index = B/A= <u>4.95</u>	

### Hydrophytic Vegetation Indicators:

☐ Rapid Test for Hydrophytic Vegetation  
☐ Dominance Test > 50%  
☐ Prevalence Index ≤ 3.0  
☐ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
☐ Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes \_\_\_\_\_ No X

% Bare Ground in Herb Stratum 25 % Cover of Biotic Crust \_\_\_\_\_

Remarks: (Include photo numbers here or on a separate sheet.)  
 Upland dominated vegetation.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)           |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)       |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)   |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)   |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input type="checkbox"/> Depleted Matrix (F3)       |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)     |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)          |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |   |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)
- ☐ 2 cm Muck (A10) (LRR B)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No X**Remarks:**

No pit - pavement and fill material.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)
- ☐ Sediment Deposits (B2) (Riverine)
- ☐ Drift Deposits (B3) (Riverine)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

**Field Observations:**Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Water Table Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Saturation Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_

(includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

**Remarks:**

Appears dry with no indicators.

# WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: WDC 08-N-201302041320 City/County: Davis County Sampling Date: 4/24/13  
 Applicant/Owner: UDOT State: Utah Sampling Point: 08-N-20130204  
 Investigator(s): Nate Nichols Section, Township, Range: S 8 T 4 R 2  
 Landform (hillslope, terrace, etc.): Basin Local relief (concave, convex, none): None Slope (%): 0  
 Subregion (LRR): LRR D Lat: 41.096161 Long: -112.085103 Datum: GCS WGS84  
 Soil Map Unit Name: Ford loam, shallow water table, 0 to 1 percent slopes NWI classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/>	
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	
Remarks: Area appears to have been excavated at some point. Soils are not indicative of hydric conditions.	

## VEGETATION – Use scientific names of plants.

<b>Tree Stratum</b> (Plot size: _____) 1. _____ 2. _____ 3. _____ 4. _____ _____ = Total Cover <b>Sapling/Shrub Stratum</b> (Plot size: _____) 1. _____ 2. _____ 3. _____ 4. _____ 5. _____ _____ = Total Cover <b>Herb Stratum</b> (Plot size: _____) 1. <u>Juncus Arcticus</u> 60 Y FACW 2. <u>Distichlis spicata</u> 30 Y FAC 3. <u>Phragmites australis</u> 10 N FACW 4. _____ 5. _____ 6. _____ 7. _____ 8. _____ _____ = Total Cover <b>Woody Vine Stratum</b> (Plot size: _____) 1. _____ 2. _____ _____ = Total Cover % Bare Ground in Herb Stratum <u>0</u> % Cover of Biotic Crust <u>0</u>	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B) <b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species <u>0</u> x 1 = _____ FACW species <u>70</u> x 2 = <u>140</u> FAC species <u>30</u> x 3 = <u>90</u> FACU species <u>0</u> x 4 = _____ UPL species <u>0</u> x 5 = _____ Column Totals: <u>100</u> (A) <u>230</u> (B) Prevalence Index = B/A = <u>2.3</u> <b>Hydrophytic Vegetation Indicators:</b> <input checked="" type="checkbox"/> Dominance Test is >50% <input checked="" type="checkbox"/> Prevalence Index is ≤3.0 <sup>1</sup> _____ Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. <b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No _____
Remarks: Vegetation qualifies as hydrophytic.	



# SOIL

Sampling Point: 08-N-20136

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-1	10 YR 4/2	100					Org	
2-10	10 YR 4/1	100					SiCL	
10+								Rock layer

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) (**LRR C**)
- ☐ 1 cm Muck (A9) (**LRR D**)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)

- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- ☐ 1 cm Muck (A9) (**LRR C**)
- ☐ 2 cm Muck (A10) (**LRR B**)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No ☒

Remarks:

No hydric indicators observed. Solid rock layer at 10".

# HYDROLOGY

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☒ High Water Table (A2)
- ☒ Saturation (A3)
- ☐ Water Marks (B1) (**Nonriverine**)
- ☐ Sediment Deposits (B2) (**Nonriverine**)
- ☐ Drift Deposits (B3) (**Nonriverine**)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)

- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) (**Riverine**)
- ☐ Sediment Deposits (B2) (**Riverine**)
- ☐ Drift Deposits (B3) (**Riverine**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☒ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present? Yes \_\_\_\_\_ No ☒ Depth (inches): \_\_\_\_\_

Water Table Present? Yes ☒ No \_\_\_\_\_ Depth (inches): 7 inch

Saturation Present? Yes ☒ No \_\_\_\_\_ Depth (inches): 0 inch  
(includes capillary fringe)

**Wetland Hydrology Present?** Yes ☒ No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Hydrology may be related to golf course.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 5/10/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 1 Sampling Point: 08-W-201205101305  
 Investigators: Mike Perkins Brian Nicholson Section, Township, Range S 9 T 4 R 2  
 Landform (hillslope, terrace, etc.): Basin Local Relief (concave, convex, none): Concave Slope(%) 2  
 Subregion (LRR): LRR D Lat: 41.0939101023 Long: -112.083367358 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Ford loam, shallow water table, 0 to 1 percent slopes NWI Classification: PEMC

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No        (If No, explain in Remarks)  
 Are Vegetation X, Soil X, Hydrology       , significantly disturbed? Are "Normal Circumstances" present? Yes        No X  
 Are Vegetation       , Soil       , Hydrology       , naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No <u>      </u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No <u>      </u> Wetland ID: <u>08-W-26</u>
Hydric Soil Present? Yes <u>X</u> No <u>      </u>	
Wetland Hydrology Present? Yes <u>X</u> No <u>      </u>	

Remarks:  
 Wetland sample point. Evidence of soil disturbance (lower layer of old organic material & debris in upper soil layers).

## VEGETATION— Use scientific names of plants.

	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
<u>Tree Stratum</u>			
<u>Shrub Stratum</u>			
<u>Herb Stratum</u> (Plot size: <u>30 Ft</u> )			
<u>Phalaris arundinacea</u>	<u>40</u>	<u>Y</u>	<u>FACW</u>
	<u>40</u>	<u>=Total Cover</u>	
<u>Vine Stratum</u>			

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 1 (A)  
 Total Number of Dominant Species Across all Strata: 1 (B)  
 Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	<u>0</u>	x 1 =	<u>0</u>
FACW species	<u>40</u>	x 2 =	<u>80</u>
FAC species	<u>0</u>	x 3 =	<u>0</u>
FACU species	<u>0</u>	x 4 =	<u>0</u>
UPL species	<u>0</u>	x 5 =	<u>0</u>
Column Totals:	<u>40</u> (A)		<u>80</u> (B)
Prevalence Index = B/A= <u>2.00</u>			

### Hydrophytic Vegetation Indicators:

       Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
       Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
       Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

### Hydrophytic

Vegetation Present? Yes X No       

% Bare Ground in Herb Stratum 60 % Cover of Biotic Crust       

Remarks: (Include photo numbers here or on a separate sheet.)

Although disturbed, still dominated by wetland vegetation.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)**

Depth (inches)	Matrix			Redox Features				Texture	Remarks
	Color (moist)		%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 8	10YR	3.0 / 2	90	10YR 5/4	5	C	M	CLAY LOAM	also: 7.5YR 5/6 5% C M
8 to 20	10YR	3.0 / 2	100					LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)                   |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)               |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)           |
| <input checked="" type="checkbox"/> Hydrogen Sulfide (A4)  | <input type="checkbox"/> Loamy Gleyed Matrix (F2)           |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input type="checkbox"/> Depleted Matrix (F3)               |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input checked="" type="checkbox"/> Redox Dark Surface (F6) |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7)         |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)             |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)                  |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |   |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- |   |
|---|
| <input type="checkbox"/> 1 cm Muck (A9) (LRR C)     |
| <input type="checkbox"/> 2 cm Muck (A10) (LRR B)    |
| <input type="checkbox"/> Reduced Vertic (F18)       |
| <input type="checkbox"/> Red Parent Material (TF2)  |
| <input type="checkbox"/> Other (Explain in Remarks) |

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes X No \_\_\_\_\_

## Remarks:

Disturbed soils appear to be localized to northwest area of polygon. Bright mottles &amp; depletions, each 5%. Soil meets hydric indicators A4 and F6.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |   |  |
|---|--|
| <input type="checkbox"/> Surface Water (A1)                                   | <input type="checkbox"/> Salt Crust (B11)                              |
| <input checked="" type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input checked="" type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)                       | <input checked="" type="checkbox"/> Hydrogen Sulfide Odor (C1)         |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)                 | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)                    | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                             | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input checked="" type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                            | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- |   |
|---|
| <input type="checkbox"/> Water Marks (B1) (Riverine)            |
| <input type="checkbox"/> Sediment Deposits (B2) (Riverine)      |
| <input type="checkbox"/> Drift Deposits (B3) (Riverine)         |
| <input type="checkbox"/> Drainage Patterns (B10)                |
| <input type="checkbox"/> Dry-Season Water Table (C2)            |
| <input type="checkbox"/> Crayfish Burrows (C8)                  |
| <input type="checkbox"/> Saturation Visible on Aerial Imag.(C9) |
| <input type="checkbox"/> Shallow Aquitard (D3)                  |
| <input checked="" type="checkbox"/> FAC-Neutral Test (D5)       |

**Field Observations:**

Surface Water Present?	Yes	____	No	<u>X</u>	Depth (inches):	____	--
Water Table Present?	Yes	<u>X</u>	No	____	Depth (inches):	____	10
Saturation Present?	Yes	<u>X</u>	No	____	Depth (inches):	____	8

(includes capillary fringe)

**Wetland Hydrology Present?** Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

Sampling point meets criteria for wetland hydrology. Initially, saturation only apparent at 20 inches, but water in pit and saturation later rose.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 5/25/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 1 Sampling Point: 08-W-201205251222  
 Investigators: Trent Toler Section, Township, Range S 9 T 4 R 2  
 Landform (hillslope, terrace, etc.): Basin Local Relief (concave, convex, none): Concave Slope(%) 0  
 Subregion (LRR): LRR D Lat: 41.0941268848 Long: -112.083227315 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Ford loam, shallow water table, 0 to 1 percent slopes NWI Classification: PEMA  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No        (If No, explain in Remarks)  
 Are Vegetation       , Soil X, Hydrology       , significantly disturbed? Are "Normal Circumstances" present? Yes X No         
 Are Vegetation       , Soil       , Hydrology       , naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No <u>      </u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No <u>      </u> <b>Wetland ID:</b> <u>08-W-26</u>
Hydric Soil Present? Yes <u>X</u> No <u>      </u>	
Wetland Hydrology Present? Yes <u>X</u> No <u>      </u>	

Remarks:  
 Tall marsh meets wetland criteria even though it contains large rocks and concrete.

## VEGETATION— Use scientific names of plants.

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
Typha latifolia	75	Y	OBL
Phragmites australis	25	Y	FACW
Schoenoplectus acutus	5	N	OBL
Conyza canadensis	2	N	FACU
	107	=Total Cover	

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 2 (A)  
 Total Number of Dominant Species Across all Strata: 2 (B)  
 Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>80</u>	x 1 = <u>80</u>
FACW species <u>25</u>	x 2 = <u>50</u>
FAC species <u>0</u>	x 3 = <u>0</u>
FACU species <u>2</u>	x 4 = <u>8</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>107</u> (A)	<u>138</u> (B)
Prevalence Index = B/A= <u>1.29</u>	

### Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
 Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No       

% Bare Ground in Herb Stratum 0 % Cover of Biotic Crust

Remarks: (Include photo numbers here or on a separate sheet.)  
 Tall emergent marsh with horseweed by edges.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 18	10YR	2.0 / 2		100			SILT LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)           |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)       |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)   |
| <input checked="" type="checkbox"/> Hydrogen Sulfide (A4)  | <input type="checkbox"/> Loamy Gleyed Matrix (F2)   |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input type="checkbox"/> Depleted Matrix (F3)       |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)     |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)          |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |   |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- |   |
|---|
| <input type="checkbox"/> 1 cm Muck (A9) (LRR C)     |
| <input type="checkbox"/> 2 cm Muck (A10) (LRR B)    |
| <input type="checkbox"/> Reduced Vertic (F18)       |
| <input type="checkbox"/> Red Parent Material (TF2)  |
| <input type="checkbox"/> Other (Explain in Remarks) |

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes X No \_\_\_\_\_

## Remarks:

Hydrogen Sulfide odor. High organic component in soils all the way to 18 inches.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input checked="" type="checkbox"/> High Water Table (A2)          | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input checked="" type="checkbox"/> Saturation (A3)                | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input checked="" type="checkbox"/> Hydrogen Sulfide Odor (C1)         |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- |   |
|---|
| <input type="checkbox"/> Water Marks (B1) (Riverine)            |
| <input type="checkbox"/> Sediment Deposits (B2) (Riverine)      |
| <input type="checkbox"/> Drift Deposits (B3) (Riverine)         |
| <input type="checkbox"/> Drainage Patterns (B10)                |
| <input type="checkbox"/> Dry-Season Water Table (C2)            |
| <input type="checkbox"/> Crayfish Burrows (C8)                  |
| <input type="checkbox"/> Saturation Visible on Aerial Imag.(C9) |
| <input type="checkbox"/> Shallow Aquitard (D3)                  |
| <input checked="" type="checkbox"/> FAC-Neutral Test (D5)       |

**Field Observations:**Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Water Table Present? Yes X No \_\_\_\_\_ Depth (inches): 5Saturation Present? Yes X No \_\_\_\_\_ Depth (inches): 0

(includes capillary fringe)

**Wetland Hydrology Present?** Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

Saturated to surface and high water table.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 5/25/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 1 Sampling Point: 08-W-201205251403  
 Investigators: Trent Toler Section, Township, Range S 9 T 4 R 2  
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): None Slope(%) 1  
 Subregion (LRR): LRR D Lat: 41.0933448661 Long: -112.082498672 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Ford loam, shallow water table, 0 to 1 percent slopes NWI Classification: PEMC

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No        (If No, explain in Remarks)  
 Are Vegetation       , Soil       , Hydrology       , significantly disturbed? Are "Normal Circumstances" present? Yes X No         
 Are Vegetation       , Soil       , Hydrology       , naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No <u>      </u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No <u>      </u> <b>Wetland ID:</b> <u>08-W-26</u>
Hydric Soil Present? Yes <u>X</u> No <u>      </u>	
Wetland Hydrology Present? Yes <u>X</u> No <u>      </u>	

Remarks:  
 Sample point in terraced edge to main wetland area. May be supported by irrigation.

## VEGETATION— Use scientific names of plants.

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
Distichlis spicata	40	Y	FAC
Eleocharis palustris	20	Y	OBL
Phragmites australis	20	Y	FACW
Juncus arcticus	10	N	FACW
Typha latifolia	10	N	OBL
Lactuca serriola	3	N	FACU
Thinopyrum ponticum	2	N	UPL
	105	=Total Cover	

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across all Strata: 3 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>30</u>	x 1 = <u>30</u>
FACW species <u>30</u>	x 2 = <u>60</u>
FAC species <u>40</u>	x 3 = <u>120</u>
FACU species <u>3</u>	x 4 = <u>12</u>
UPL species <u>2</u>	x 5 = <u>10</u>
Column Totals: <u>105</u> (A)	<u>232</u> (B)

Prevalence Index = B/A = 2.21

### Hydrophytic Vegetation Indicators:

       Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
       Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
       Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No       

% Bare Ground in Herb Stratum 0 % Cover of Biotic Crust       

Remarks: (Include photo numbers here or on a separate sheet.)

Mostly wet meadow, connects to emergent marsh to north.



**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 3	10YR 3.0/ 3	100					SILTY CLAY LOAM	
3 to 8	10YR 2.0/ 1	90	10YR 6/2	10	D	M	SILT LOAM	
8 to 20	10YR 2.0/ 2	90	10YR 6/2	10	D	M	SILTY CLAY LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |  |
|--|--|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)                      |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)                  |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)              |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)              |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input type="checkbox"/> Depleted Matrix (F3)                  |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)               |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input checked="" type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)                |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)                     |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |  |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- |   |
|---|
| <input type="checkbox"/> 1 cm Muck (A9) (LRR C)     |
| <input type="checkbox"/> 2 cm Muck (A10) (LRR B)    |
| <input type="checkbox"/> Reduced Vertic (F18)       |
| <input type="checkbox"/> Red Parent Material (TF2)  |
| <input type="checkbox"/> Other (Explain in Remarks) |

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes X No \_\_\_\_\_

## Remarks:

Very dark soil just fits F7.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input checked="" type="checkbox"/> Saturation (A3)                | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- |   |
|---|
| <input type="checkbox"/> Water Marks (B1) (Riverine)            |
| <input type="checkbox"/> Sediment Deposits (B2) (Riverine)      |
| <input type="checkbox"/> Drift Deposits (B3) (Riverine)         |
| <input type="checkbox"/> Drainage Patterns (B10)                |
| <input type="checkbox"/> Dry-Season Water Table (C2)            |
| <input type="checkbox"/> Crayfish Burrows (C8)                  |
| <input type="checkbox"/> Saturation Visible on Aerial Imag.(C9) |
| <input type="checkbox"/> Shallow Aquitard (D3)                  |
| <input checked="" type="checkbox"/> FAC-Neutral Test (D5)       |

**Field Observations:**

Surface Water Present?	Yes _____ No <u>X</u>	Depth (inches):	_____
Water Table Present?	Yes _____ No <u>X</u>	Depth (inches):	16
Saturation Present?	Yes <u>X</u> No _____	Depth (inches):	1

(includes capillary fringe)

**Wetland Hydrology Present?** Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

Surface saturated but layers below are not so may be due to recent irrigation. While this saturation does not appear to be associated with a water table, saturation with a shallow water table was observed here in April 2012. South end still has surface water.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 5/11/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 2 Sampling Point: 09-N-201205111105  
 Investigators: Mike Perkins Nate Nichols Section, Township, Range S 9 T 4 R 2  
 Landform (hillslope, terrace, etc.): Basin Local Relief (concave, convex, none): Concave Slope(%) 2  
 Subregion (LRR): LRR D Lat: 41.0903109982 Long: -112.082317552 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Ford loam, shallow water table, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> <b>Wetland ID:</b> _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks:  
 Sampling point has hydrophytic vegetation and wetland hydrology, but does not contain hydric soils.

## VEGETATION— Use scientific names of plants.

	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
<u>Tree Stratum</u>			
<u>Shrub Stratum</u>			
<u>Herb Stratum</u> (Plot size: <u>30 Ft</u> )			
<u>Distichlis spicata</u>	<u>50</u>	<u>Y</u>	<u>FAC</u>
<u>Carex praegracilis</u>	<u>35</u>	<u>Y</u>	<u>FACW</u>
<u>Thinopyrum intermedium</u>	<u>30</u>	<u>Y</u>	<u>UPL</u>
<u>Juncus arcticus</u>	<u>25</u>	<u>N</u>	<u>FACW</u>
	<u>140</u>	<u>=Total Cover</u>	
<u>Vine Stratum</u>			

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 2 (A)  
 Total Number of Dominant Species Across all Strata: 3 (B)  
 Percent of Dominant Species That are OBL, FACW, or FAC: 66.7% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>60</u>	x 2 = <u>120</u>
FAC species <u>50</u>	x 3 = <u>150</u>
FACU species <u>0</u>	x 4 = <u>0</u>
UPL species <u>30</u>	x 5 = <u>150</u>
Column Totals: <u>140</u> (A)	<u>420</u> (B)
Prevalence Index = B/A= <u>3.00</u>	

### Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
 Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No \_\_\_\_\_

% Bare Ground in Herb Stratum 0 % Cover of Biotic Crust 0

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation is hydrophytic.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 2	10YR 3.0/ 1	100					SANDY LOAM	organic
2 to 17	10YR 3.0/ 2	100					SILTY CLAY LOAM	
17 to 20	10YR 4.0/ 2	100					SILTY CLAY LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)           |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)       |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)   |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)   |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input type="checkbox"/> Depleted Matrix (F3)       |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)     |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)          |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |   |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- |   |
|---|
| <input type="checkbox"/> 1 cm Muck (A9) (LRR C)     |
| <input type="checkbox"/> 2 cm Muck (A10) (LRR B)    |
| <input type="checkbox"/> Reduced Vertic (F18)       |
| <input type="checkbox"/> Red Parent Material (TF2)  |
| <input type="checkbox"/> Other (Explain in Remarks) |

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.☒ **Restrictive Layer (if observed):**Type: calcic  
Depth (inches): 20**Hydric Soil Present?** Yes        No **X**Remarks:  
No hydric indicators observed in soil profile.**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input checked="" type="checkbox"/> Saturation (A3)                | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- |   |
|---|
| <input type="checkbox"/> Water Marks (B1) (Riverine)            |
| <input type="checkbox"/> Sediment Deposits (B2) (Riverine)      |
| <input type="checkbox"/> Drift Deposits (B3) (Riverine)         |
| <input type="checkbox"/> Drainage Patterns (B10)                |
| <input type="checkbox"/> Dry-Season Water Table (C2)            |
| <input type="checkbox"/> Crayfish Burrows (C8)                  |
| <input type="checkbox"/> Saturation Visible on Aerial Imag.(C9) |
| <input type="checkbox"/> Shallow Aquitard (D3)                  |
| <input checked="" type="checkbox"/> FAC-Neutral Test (D5)       |

**Field Observations:**

Surface Water Present?	Yes <u>      </u> No <u><b>X</b></u>	Depth (inches):	<u>      </u>
Water Table Present?	Yes <u>      </u> No <u><b>X</b></u>	Depth (inches):	<u>      </u>
Saturation Present?	Yes <u><b>X</b></u> No <u>      </u>	Depth (inches):	<u>11</u>

(includes capillary fringe)

**Wetland Hydrology Present?** Yes **X** No       

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

Sampling point appears to meet criteria for wetland hydrology.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 5/11/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 2 Sampling Point: 09-N-20120511240  
 Investigators: Donovan Gross Brian Nicholson Section, Township, Range S 9 T 4 R 2  
 Landform (hillslope, terrace, etc.): Basin Local Relief (concave, convex, none): None Slope(%) 20  
 Subregion (LRR): LRR D Lat: 41.0917109096 Long: -112.083032885 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Ford loam, shallow water table, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u>  <b>Wetland ID:</b> _____
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes _____ No <u>X</u>	

Remarks:  
 Sampling point not a wetland; dominated by upland vegetation.

## VEGETATION— Use scientific names of plants.

**Absolute % Cover** **Dominant Species** **Indicator Status**

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

Thinopyrum ponticum	60	Y	UPL
Lactuca serriola	10	N	FACU
Epilobium ciliatum	5	N	FACW
	75	=Total Cover	

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 1 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 0.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>5</u>	x 2 = <u>10</u>
FAC species <u>0</u>	x 3 = <u>0</u>
FACU species <u>10</u>	x 4 = <u>40</u>
UPL species <u>60</u>	x 5 = <u>300</u>
Column Totals: <u>75</u> (A)	<u>350</u> (B)

Prevalence Index = B/A = 4.67

### Hydrophytic Vegetation Indicators:

☐ Rapid Test for Hydrophytic Vegetation  
☐ Dominance Test > 50%  
☐ Prevalence Index ≤ 3.0  
☐ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
☐ Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes \_\_\_\_\_ No X

% Bare Ground in Herb Stratum 1 % Cover of Biotic Crust

Remarks: (Include photo numbers here or on a separate sheet.)  
 Vegetation is not hydrophytic.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 4	10YR	3.0 / 2		0			SILT LOAM	
4 to 12	10YR	2.0 / 2		0			SILTY CLAY LOAM	
12 to 18	10YR	7.0 / 2		0			SILTY CLAY	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- ☐ Histosol (A1)  
☐ Histic Epipedon (A2)  
☐ Black Histic (A3)  
☐ Hydrogen Sulfide (A4)  
☐ Stratified Layers (A5) LRR C  
☐ 1 cm Muck (A9) LRR F D  
☒ Depleted Below Dark Surface (A11)  
☐ Thick Dark Surface (A12)  
☐ Sandy Mucky Mineral (S1)  
☐ Sandy Gleyed Matrix (S4)

- ☐ Sandy Redox (S5)  
☐ Stripped Matrix (S6)  
☐ Loamy Mucky Mineral (F1)  
☐ Loamy Gleyed Matrix (F2)  
☐ Depleted Matrix (F3)  
☐ Redox Dark Surface (F6)  
☐ Depleted Dark Surface (F7)  
☐ Redox Depressions (F8)  
☐ Vernal Pools (F9)

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)  
☐ 2 cm Muck (A10) (LRR B)  
☐ Reduced Vertic (F18)  
☐ Red Parent Material (TF2)  
☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes X No \_\_\_\_\_

Remarks:  
Soil profile meets A11 indicator.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)  
☐ High Water Table (A2)  
☐ Saturation (A3)  
☐ Water Marks (B1) (Nonriverine)  
☐ Sediment Deposits (B2) (Nonriverine)  
☐ Drift Deposits (B3) (Nonriverine)  
☐ Surface Soil Cracks (B6)  
☐ Inundation Visible on Aerial Imagery (B7)  
☐ Water-Stained Leaves (B9)  
☐ Salt Crust (B11)  
☐ Biotic Crust (B12)  
☐ Aquatic Fauna (B13)  
☐ Hydrogen Sulfide Odor (C1)  
☐ Oxidized Rhizospheres along Living Roots (C3)  
☐ Presence of Reduced Iron (C4)  
☐ Recent Iron Reduction in Tilled Soils (C6)  
☐ Thin Muck Surface (C7)  
☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)  
☐ Sediment Deposits (B2) (Riverine)  
☐ Drift Deposits (B3) (Riverine)  
☐ Drainage Patterns (B10)  
☐ Dry-Season Water Table (C2)  
☐ Crayfish Burrows (C8)  
☐ Saturation Visible on Aerial Imag.(C9)  
☐ Shallow Aquitard (D3)  
☐ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_  
Water Table Present? Yes \_\_\_\_\_ No X Depth (inches): 16  
Saturation Present? Yes \_\_\_\_\_ No X Depth (inches): 14  
(includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:  
No hydrology indicators observed.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 5/11/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 2 Sampling Point: 09-N-201205111343  
 Investigators: Mike Perkins Nate Nichols Section, Township, Range S 9 T 4 R 2  
 Landform (hillslope, terrace, etc.): Basin Local Relief (concave, convex, none): Convex Slope(%) 20  
 Subregion (LRR): LRR D Lat: 41.0909742782 Long: -112.082227039 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Ford loam, shallow water table, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> <b>Wetland ID:</b> _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	

Remarks:  
 Non-wetland sampling point; no soils or hydrology.

## VEGETATION— Use scientific names of plants.

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
Carex praegracilis	80	Y	FACW
Distichlis spicata	60	Y	FAC
Thinopyrum intermedium	35	N	UPL
Juncus arcticus	20	N	FACW
	195	=Total Cover	

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across all Strata: 2 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	<u>0</u>	x 1 =	<u>0</u>
FACW species	<u>100</u>	x 2 =	<u>200</u>
FAC species	<u>60</u>	x 3 =	<u>180</u>
FACU species	<u>0</u>	x 4 =	<u>0</u>
UPL species	<u>35</u>	x 5 =	<u>175</u>
Column Totals:	<u>195</u> (A)		<u>555</u> (B)

Prevalence Index = B/A= 2.85

### Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
 Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No \_\_\_\_\_

% Bare Ground in Herb Stratum 0 % Cover of Biotic Crust 0

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation is hydrophytic.



**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 1	10YR 2.0/ 1	100					SILTY CLAY LOAM	organic
1 to 4	10YR 3.0/ 3	100					SANDY CLAY LOAM	
4 to 16	10YR 4.0/ 2	100					SILTY CLAY LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- ☐ Histosol (A1)  
☐ Histic Epipedon (A2)  
☐ Black Histic (A3)  
☐ Hydrogen Sulfide (A4)  
☐ Stratified Layers (A5) LRR C  
☐ 1 cm Muck (A9) LRR F D  
☐ Depleted Below Dark Surface (A11)  
☐ Thick Dark Surface (A12)  
☐ Sandy Mucky Mineral (S1)  
☐ Sandy Gleyed Matrix (S4)

- ☐ Sandy Redox (S5)  
☐ Stripped Matrix (S6)  
☐ Loamy Mucky Mineral (F1)  
☐ Loamy Gleyed Matrix (F2)  
☐ Depleted Matrix (F3)  
☐ Redox Dark Surface (F6)  
☐ Depleted Dark Surface (F7)  
☐ Redox Depressions (F8)  
☐ Vernal Pools (F9)

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)  
☐ 2 cm Muck (A10) (LRR B)  
☐ Reduced Vertic (F18)  
☐ Red Parent Material (TF2)  
☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☒ **Restrictive Layer (if observed):**

Type: calcic  
 Depth (inches): 16

Hydric Soil Present? Yes        No X

Remarks:  
 No hydric indicators observed in soil profile.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)  
☐ High Water Table (A2)  
☐ Saturation (A3)  
☐ Water Marks (B1) (Nonriverine)  
☐ Sediment Deposits (B2) (Nonriverine)  
☐ Drift Deposits (B3) (Nonriverine)  
☐ Surface Soil Cracks (B6)  
☐ Inundation Visible on Aerial Imagery (B7)  
☐ Water-Stained Leaves (B9)  
☐ Salt Crust (B11)  
☐ Biotic Crust (B12)  
☐ Aquatic Fauna (B13)  
☐ Hydrogen Sulfide Odor (C1)  
☐ Oxidized Rhizospheres along Living Roots (C3)  
☐ Presence of Reduced Iron (C4)  
☐ Recent Iron Reduction in Tilled Soils (C6)  
☐ Thin Muck Surface (C7)  
☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)  
☐ Sediment Deposits (B2) (Riverine)  
☐ Drift Deposits (B3) (Riverine)  
☐ Drainage Patterns (B10)  
☐ Dry-Season Water Table (C2)  
☐ Crayfish Burrows (C8)  
☐ Saturation Visible on Aerial Imag.(C9)  
☐ Shallow Aquitard (D3)  
☒ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present? Yes        No X Depth (inches):         
 Water Table Present? Yes        No X Depth (inches):         
 Saturation Present? Yes        No X Depth (inches): 15  
 (includes capillary fringe)

Wetland Hydrology Present? Yes        No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

Area lacks sufficient evidence for wetland hydrology.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 5/11/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 2 Sampling Point: 09-N-201205111408  
 Investigators: Mike Perkins Nate Nichols Section, Township, Range S 9 T 4 R 2  
 Landform (hillslope, terrace, etc.): Basin Local Relief (concave, convex, none): Concave Slope(%) 20  
 Subregion (LRR): LRR D Lat: 41.0904859173 Long: -112.08234541 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Ford loam, shallow water table, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> <b>Wetland ID:</b> _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	

Remarks:  
 Area with hydrophytic vegetation does not meet wetland criteria (soils & hydrology fail). Area appears to be influenced by irrigation as it is near the terminus of a field ditch.

## VEGETATION— Use scientific names of plants.

**Absolute % Cover** **Dominant Species** **Indicator Status**

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

Juncus arcticus	40	Y	FACW
Carex praegracilis	30	Y	FACW
Distichlis spicata	25	Y	FAC
Thinopyrum intermedium	10	N	UPL
	105	=Total Cover	

### Vine Stratum

## Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 3 (A)  
 Total Number of Dominant Species Across all Strata: 3 (B)  
 Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

## Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	<u>0</u>	x 1 =	<u>0</u>
FACW species	<u>70</u>	x 2 =	<u>140</u>
FAC species	<u>25</u>	x 3 =	<u>75</u>
FACU species	<u>0</u>	x 4 =	<u>0</u>
UPL species	<u>10</u>	x 5 =	<u>50</u>
Column Totals:	<u>105</u> (A)		<u>265</u> (B)
Prevalence Index = B/A=		<u>2.52</u>	

## Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
 Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No \_\_\_\_\_

% Bare Ground in Herb Stratum 15 % Cover of Biotic Crust \_\_\_\_\_

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation qualifies as hydrophytic.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 4	10YR	3.0 / 2	100				SILTY CLAY LOAM	
4 to 13	10YR	3.0 / 2	100				SILT LOAM	
13 to 18	10YR	5.0 / 2	100				SILTY CLAY	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)           |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)       |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)   |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)   |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input type="checkbox"/> Depleted Matrix (F3)       |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)     |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)          |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |   |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- |   |
|---|
| <input type="checkbox"/> 1 cm Muck (A9) (LRR C)     |
| <input type="checkbox"/> 2 cm Muck (A10) (LRR B)    |
| <input type="checkbox"/> Reduced Vertic (F18)       |
| <input type="checkbox"/> Red Parent Material (TF2)  |
| <input type="checkbox"/> Other (Explain in Remarks) |

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.☒ **Restrictive Layer (if observed):**Type: calcic  
Depth (inches): 16**Hydric Soil Present?** Yes      No XRemarks:  
No hydric indicators observed in soil profile.**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- |   |
|---|
| <input type="checkbox"/> Water Marks (B1) (Riverine)            |
| <input type="checkbox"/> Sediment Deposits (B2) (Riverine)      |
| <input type="checkbox"/> Drift Deposits (B3) (Riverine)         |
| <input type="checkbox"/> Drainage Patterns (B10)                |
| <input type="checkbox"/> Dry-Season Water Table (C2)            |
| <input type="checkbox"/> Crayfish Burrows (C8)                  |
| <input type="checkbox"/> Saturation Visible on Aerial Imag.(C9) |
| <input type="checkbox"/> Shallow Aquitard (D3)                  |
| <input checked="" type="checkbox"/> FAC-Neutral Test (D5)       |

**Field Observations:**

Surface Water Present?	Yes <u>    </u> No <u>X</u>	Depth (inches): <u>    </u>
Water Table Present?	Yes <u>    </u> No <u>X</u>	Depth (inches): <u>    </u>
Saturation Present?	Yes <u>    </u> No <u>X</u>	Depth (inches): <u>    </u>

(includes capillary fringe)

**Wetland Hydrology Present?** Yes      No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

Dry area lacks sufficient evidence for wetland hydrology.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 5/11/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 2 Sampling Point: 09-W-201205111219  
 Investigators: Donovan Gross Brian Nicholson Section, Township, Range S 9 T 4 R 2  
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): None Slope(%) 0  
 Subregion (LRR): LRR D Lat: 41.0918940759 Long: -112.083040697 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Ford loam, shallow water table, 0 to 1 percent slopes NWI Classification: PEMA  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No        (If No, explain in Remarks)  
 Are Vegetation       , Soil       , Hydrology       , significantly disturbed? Are "Normal Circumstances" present? Yes X No         
 Are Vegetation       , Soil       , Hydrology       , naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No <u>      </u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No <u>      </u> <b>Wetland ID:</b> <u>08-W-26</u>
Hydric Soil Present? Yes <u>X</u> No <u>      </u>	
Wetland Hydrology Present? Yes <u>X</u> No <u>      </u>	

Remarks:  
 Wetland in irrigated pasture.

## VEGETATION— Use scientific names of plants.

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
Carex praegracilis	50	Y	FACW
Distichlis spicata	30	Y	FAC
Epilobium ciliatum	15	N	FACW
Lactuca serriola	5	N	FACU
	100	=Total Cover	

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 2 (A)  
 Total Number of Dominant Species Across all Strata: 2 (B)  
 Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>65</u>	x 2 = <u>130</u>
FAC species <u>30</u>	x 3 = <u>90</u>
FACU species <u>5</u>	x 4 = <u>20</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>100</u> (A)	<u>240</u> (B)
Prevalence Index = B/A= <u>2.40</u>	

### Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
 Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No       

% Bare Ground in Herb Stratum 3 % Cover of Biotic Crust

Remarks: (Include photo numbers here or on a separate sheet.)  
 Wet meadow vegetation with some weeds.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 4	10YR	2.0/ 2	100				SILT LOAM	
4 to 10	10YR	3.0/ 2	100				SILTY CLAY	
10 to 12	10YR	5.0/ 2	100				CLAY LOAM	
12 to 18	10YR	6.0/ 2	100				SILTY CLAY LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |   |   |
|---|---|
| <input type="checkbox"/> Histosol (A1)                                | <input type="checkbox"/> Sandy Redox (S5)           |
| <input type="checkbox"/> Histic Epipedon (A2)                         | <input type="checkbox"/> Stripped Matrix (S6)       |
| <input type="checkbox"/> Black Histic (A3)                            | <input type="checkbox"/> Loamy Mucky Mineral (F1)   |
| <input type="checkbox"/> Hydrogen Sulfide (A4)                        | <input type="checkbox"/> Loamy Gleyed Matrix (F2)   |
| <input type="checkbox"/> Stratified Layers (A5) LRR C                 | <input type="checkbox"/> Depleted Matrix (F3)       |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D                       | <input type="checkbox"/> Redox Dark Surface (F6)    |
| <input checked="" type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12)                     | <input type="checkbox"/> Redox Depressions (F8)     |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)                     | <input type="checkbox"/> Vernal Pools (F9)          |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)                     |   |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)  
☐ 2 cm Muck (A10) (LRR B)  
☐ Reduced Vertic (F18)  
☐ Red Parent Material (TF2)  
☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes X No \_\_\_\_\_

## Remarks:

Very tight clay, just fits hydric indicator A11.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input checked="" type="checkbox"/> High Water Table (A2)          | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input checked="" type="checkbox"/> Saturation (A3)                | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)  
☐ Sediment Deposits (B2) (Riverine)  
☐ Drift Deposits (B3) (Riverine)  
☐ Drainage Patterns (B10)  
☐ Dry-Season Water Table (C2)  
☐ Crayfish Burrows (C8)  
☐ Saturation Visible on Aerial Imag.(C9)  
☐ Shallow Aquitard (D3)  
☒ FAC-Neutral Test (D5)

**Field Observations:**Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Water Table Present? Yes X No \_\_\_\_\_ Depth (inches): 10Saturation Present? Yes X No \_\_\_\_\_ Depth (inches): 8

(includes capillary fringe)

**Wetland Hydrology Present?** Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

Appears to be an irrigated pasture, wetland hydrology observed.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 5/11/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 2 Sampling Point: 09-W-201205111233  
 Investigators: Mike Perkins Nate Nichols Section, Township, Range S 9 T 4 R 2  
 Landform (hillslope, terrace, etc.): Basin Local Relief (concave, convex, none): Concave Slope(%) 20  
 Subregion (LRR): LRR D Lat: 41.0911168352 Long: -112.082280879 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Ford loam, shallow water table, 0 to 1 percent slopes NWI Classification: PEMC  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No        (If No, explain in Remarks)  
 Are Vegetation       , Soil       , Hydrology       , significantly disturbed? Are "Normal Circumstances" present? Yes X No         
 Are Vegetation       , Soil       , Hydrology       , naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No <u>      </u> Hydric Soil Present? Yes <u>X</u> No <u>      </u> Wetland Hydrology Present? Yes <u>X</u> No <u>      </u>	Is the Sampled Area within a Wetland? Yes <u>X</u> No <u>      </u> Wetland ID: <u>08-W-26</u>
---	---

Remarks:  
 Sampling point is a wetland. Adjacent ditch to east.

### VEGETATION— Use scientific names of plants.

#### Tree Stratum

#### Shrub Stratum

#### Herb Stratum (Plot size: 30 Ft )

	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
<u>Schoenoplectus pungens</u>	<u>50</u>	<u>Y</u>	<u>OBL</u>
<u>Carex praegracilis</u>	<u>40</u>	<u>Y</u>	<u>FACW</u>
<u>Distichlis spicata</u>	<u>30</u>	<u>N</u>	<u>FAC</u>
<u>Juncus arcticus</u>	<u>30</u>	<u>N</u>	<u>FACW</u>
<u>Thinopyrum intermedium</u>	<u>5</u>	<u>N</u>	<u>UPL</u>
	<u>155</u>	<u>=Total Cover</u>	

#### Vine Stratum

#### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across all Strata: 2 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

#### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>50</u>	x 1 = <u>50</u>
FACW species <u>70</u>	x 2 = <u>140</u>
FAC species <u>30</u>	x 3 = <u>90</u>
FACU species <u>0</u>	x 4 = <u>0</u>
UPL species <u>5</u>	x 5 = <u>25</u>
Column Totals: <u>155</u> (A)	<u>305</u> (B)

Prevalence Index = B/A = 1.97

#### Hydrophytic Vegetation Indicators:

       Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
       Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
       Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No       

% Bare Ground in Herb Stratum 0 % Cover of Biotic Crust 0

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation is hydrophytic.



**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)**

Depth (inches)	Matrix			Redox Features				Texture	Remarks
	Color (moist)		%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
to	/								
0 to 1	10YR	3.0/ 1	100					SILTY CLAY LOAM	organic
1 to 4	10YR	4.0/ 2	100	10 YR 4/1	10	C	M	SANDY CLAY LOAM	
4 to 19	10YR	4.0/ 2	85	10YR 4/4	5	C	M	SILTY CLAY LOAM	
4 to 19	10YR	4/ 1	10						

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |  |
|--|--|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)                |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)            |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)        |
| <input checked="" type="checkbox"/> Hydrogen Sulfide (A4)  | <input type="checkbox"/> Loamy Gleyed Matrix (F2)        |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input checked="" type="checkbox"/> Depleted Matrix (F3) |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)         |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7)      |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)          |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)               |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |  |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- |   |
|---|
| <input type="checkbox"/> 1 cm Muck (A9) (LRR C)     |
| <input type="checkbox"/> 2 cm Muck (A10) (LRR B)    |
| <input type="checkbox"/> Reduced Vertic (F18)       |
| <input type="checkbox"/> Red Parent Material (TF2)  |
| <input type="checkbox"/> Other (Explain in Remarks) |

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes X No \_\_\_\_\_

## Remarks:

Soil meets A4 and F3 hydric indicators.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input checked="" type="checkbox"/> Saturation (A3)                | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input checked="" type="checkbox"/> Hydrogen Sulfide Odor (C1)         |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- |  |
|--|
| <input type="checkbox"/> Water Marks (B1) (Riverine)             |
| <input type="checkbox"/> Sediment Deposits (B2) (Riverine)       |
| <input type="checkbox"/> Drift Deposits (B3) (Riverine)          |
| <input type="checkbox"/> Drainage Patterns (B10)                 |
| <input type="checkbox"/> Dry-Season Water Table (C2)             |
| <input type="checkbox"/> Crayfish Burrows (C8)                   |
| <input type="checkbox"/> Saturation Visible on Aerial Imag. (C9) |
| <input type="checkbox"/> Shallow Aquitard (D3)                   |
| <input checked="" type="checkbox"/> FAC-Neutral Test (D5)        |

**Field Observations:**

Surface Water Present?	Yes _____ No <u>X</u>	Depth (inches):	____
Water Table Present?	Yes _____ No <u>X</u>	Depth (inches):	14
Saturation Present?	Yes _____ No <u>X</u>	Depth (inches):	10

(includes capillary fringe)

**Wetland Hydrology Present?** Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

Sampling point meets criteria for wetland hydrology.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 7/16/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 2 Sampling Point: 10-N-201207161110  
 Investigators: Mike Perkins Nate Nichols Section, Township, Range S 9 T 4 R 2  
 Landform (hillslope, terrace, etc.): Toe of Slope Local Relief (concave, convex, none): Convex Slope(%) 1  
 Subregion (LRR): LRR D Lat: 41.0905034231 Long: -112.081149647 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Ford loam, shallow water table, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology X, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> <b>Wetland ID:</b> _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	

Remarks:  
 Sample point suggests area is not a wetland.

## VEGETATION— Use scientific names of plants.

	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
<u>Tree Stratum</u>			
<u>Shrub Stratum</u>			
<u>Herb Stratum</u> (Plot size: <u>30 Ft</u> )			
Carex praegracilis	35	Y	FACW
Distichlis spicata	20	Y	FAC
Hordeum jubatum	15	N	FAC
Schoenoplectus pungens	15	N	OBL
Thinopyrum ponticum	5	N	UPL
	90	=Total Cover	
<u>Vine Stratum</u>			

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 2 (A)  
 Total Number of Dominant Species Across all Strata: 2 (B)  
 Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>15</u>	x 1 = <u>15</u>
FACW species <u>35</u>	x 2 = <u>70</u>
FAC species <u>35</u>	x 3 = <u>105</u>
FACU species <u>0</u>	x 4 = <u>0</u>
UPL species <u>5</u>	x 5 = <u>25</u>
Column Totals: <u>90</u> (A)	<u>215</u> (B)

Prevalence Index = B/A = 2.39

### Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
 Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No \_\_\_\_\_

% Bare Ground in Herb Stratum 5 % Cover of Biotic Crust \_\_\_\_\_

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation is hydrophytic.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix			Redox Features				Texture	Remarks
	Color (moist)		%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 3	10YR	4.0 / 4	100					LOAM	organic root mat
3 to 5	2.5YR	4.0 / 2	100					CLAY LOAM	
5 to 12	2.5YR	3.0 / 2	99	2.5 YR 6/1	1	C	M	CLAY LOAM	
12 to 18	10YR	3.0 / 1	100		0			CLAY LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)           |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)       |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)   |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)   |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input type="checkbox"/> Depleted Matrix (F3)       |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)     |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)          |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |   |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)  
☐ 2 cm Muck (A10) (LRR B)  
☐ Reduced Vertic (F18)  
☐ Red Parent Material (TF2)  
☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No X

## Remarks:

Soil did not contain any hydric indicators.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)  
☐ Sediment Deposits (B2) (Riverine)  
☐ Drift Deposits (B3) (Riverine)  
☐ Drainage Patterns (B10)  
☐ Dry-Season Water Table (C2)  
☐ Crayfish Burrows (C8)  
☐ Saturation Visible on Aerial Imag.(C9)  
☐ Shallow Aquitard (D3)  
☒ FAC-Neutral Test (D5)

**Field Observations:**Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Water Table Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Saturation Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_

(includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

Dry area lacks sufficient evidence for wetland hydrology.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 7/16/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 2 Sampling Point: 10-W-201207161145  
 Investigators: Mike Perkins Nate Nichols Section, Township, Range S 9 T 4 R 2  
 Landform (hillslope, terrace, etc.): Toe of Slope Local Relief (concave, convex, none): Convex Slope(%) 2  
 Subregion (LRR): LRR D Lat: 41.0906685398 Long: -112.081026047 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Ford loam, shallow water table, 0 to 1 percent slopes NWI Classification: PEMC  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No        (If No, explain in Remarks)  
 Are Vegetation       , Soil       , Hydrology       , significantly disturbed? Are "Normal Circumstances" present? Yes X No         
 Are Vegetation       , Soil       , Hydrology       , naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No <u>      </u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No <u>      </u> Wetland ID: <u>08-W-26</u>
Hydric Soil Present? Yes <u>X</u> No <u>      </u>	
Wetland Hydrology Present? Yes <u>X</u> No <u>      </u>	

Remarks:  
 wetland 'in' point.

## VEGETATION— Use scientific names of plants.

**Absolute % Cover** **Dominant Species** **Indicator Status**

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

Juncus arcticus	40	Y	FACW
Distichlis spicata	30	Y	FAC
Atriplex micrantha	5	N	UPL
Rumex crispus	5	N	FAC
	80	=Total Cover	

### Vine Stratum

## Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 2 (A)  
 Total Number of Dominant Species Across all Strata: 2 (B)  
 Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

## Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	<u>0</u>	x 1 =	<u>0</u>
FACW species	<u>40</u>	x 2 =	<u>80</u>
FAC species	<u>35</u>	x 3 =	<u>105</u>
FACU species	<u>0</u>	x 4 =	<u>0</u>
UPL species	<u>5</u>	x 5 =	<u>25</u>
Column Totals:	<u>80</u> (A)		<u>210</u> (B)
Prevalence Index = B/A=		<u>2.63</u>	

## Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
 Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No       

% Bare Ground in Herb Stratum 5 % Cover of Biotic Crust

Remarks: (Include photo numbers here or on a separate sheet.)  
 Vegetation is hydrophytic.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 4	10YR	3.0 / 3	100				SILTY CLAY	
4 to 18	10YR	4.0 / 2	95	G1 2.5/N (Mn)	5	C	M	SILTY CLAY

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |  |
|--|--|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)                |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)            |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)        |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)        |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input checked="" type="checkbox"/> Depleted Matrix (F3) |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)         |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7)      |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)          |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)               |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |  |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- |   |
|---|
| <input type="checkbox"/> 1 cm Muck (A9) (LRR C)     |
| <input type="checkbox"/> 2 cm Muck (A10) (LRR B)    |
| <input type="checkbox"/> Reduced Vertic (F18)       |
| <input type="checkbox"/> Red Parent Material (TF2)  |
| <input type="checkbox"/> Other (Explain in Remarks) |

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes   X   No       Remarks:  
Soil profile meets F3 indicator.**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input checked="" type="checkbox"/> Saturation (A3)                | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- |   |
|---|
| <input type="checkbox"/> Water Marks (B1) (Riverine)            |
| <input type="checkbox"/> Sediment Deposits (B2) (Riverine)      |
| <input type="checkbox"/> Drift Deposits (B3) (Riverine)         |
| <input type="checkbox"/> Drainage Patterns (B10)                |
| <input type="checkbox"/> Dry-Season Water Table (C2)            |
| <input type="checkbox"/> Crayfish Burrows (C8)                  |
| <input type="checkbox"/> Saturation Visible on Aerial Imag.(C9) |
| <input type="checkbox"/> Shallow Aquitard (D3)                  |
| <input checked="" type="checkbox"/> FAC-Neutral Test (D5)       |

**Field Observations:**

Surface Water Present?	Yes	<u>      </u>	No	<u>  X  </u>	Depth (inches):	<u>      --      </u>
Water Table Present?	Yes	<u>      </u>	No	<u>  X  </u>	Depth (inches):	<u>      14      </u>
Saturation Present?	Yes	<u>  X  </u>	No	<u>      </u>	Depth (inches):	<u>      9      </u>

(includes capillary fringe)

**Wetland Hydrology Present?** Yes   X   No       

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:  
Wetland hydrology present.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 7/16/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 1 Sampling Point: 08-W-201207161000  
 Investigators: Mike Perkins Nate Nichols Section, Township, Range S 8 T 4 R 2  
 Landform (hillslope, terrace, etc.): Top of Slope Local Relief (concave, convex, none): None Slope(%) 2  
 Subregion (LRR): LRR D Lat: 41.0991195779 Long: -112.088244868 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Ford loam, shallow water table, 0 to 1 percent slopes NWI Classification: PEMA  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No        (If No, explain in Remarks)  
 Are Vegetation       , Soil X, Hydrology       , significantly disturbed? Are "Normal Circumstances" present? Yes        No X  
 Are Vegetation       , Soil       , Hydrology       , naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No <u>      </u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No <u>      </u> <b>Wetland ID:</b> <u>08-W-27</u>
Hydric Soil Present? Yes <u>X</u> No <u>      </u>	
Wetland Hydrology Present? Yes <u>X</u> No <u>      </u>	

Remarks:  
 Sample point confirms feature as wetland, soil appears to contain imported rock layer which acts as a restrictive layer.

## VEGETATION— Use scientific names of plants.

**Absolute % Cover** **Dominant Species** **Indicator Status**

Tree Stratum (Plot size: 30 Ft )

Elaeagnus angustifolia

15 Y FAC  
 15 =Total Cover

Shrub Stratum

Herb Stratum (Plot size: 30 Ft )

Eleocharis palustris

25 Y OBL

Distichlis spicata

20 Y FAC

Schoenoplectus pungens

20 Y OBL

Lepidium latifolium

15 N FAC

Phragmites australis

15 N FACW

Typha latifolia

15 N OBL

Rumex crispus

5 N FAC

Thinopyrum intermedium

5 N UPL

Hordeum jubatum

2 N FAC

122 =Total Cover

Vine Stratum

## Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across all Strata: 4 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

## Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>60</u>	x 1 = <u>60</u>
FACW species <u>15</u>	x 2 = <u>30</u>
FAC species <u>57</u>	x 3 = <u>171</u>
FACU species <u>0</u>	x 4 = <u>0</u>
UPL species <u>5</u>	x 5 = <u>25</u>
Column Totals: <u>137</u> (A)	<u>286</u> (B)

Prevalence Index = B/A= 2.09

## Hydrophytic Vegetation Indicators:

       Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
       Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
       Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No       

% Bare Ground in Herb Stratum 0 % Cover of Biotic Crust

Remarks: (Include photo numbers here or on a separate sheet.)  
 Mix of emergent marsh vegetation with some weedy species and Russian olive.



**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks	
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>			
0 to 3	10YR	3.0 / 3	90	Gley1 2.5/N	10	C	M	SILTY CLAY LOAM	Mn

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |  |
|--|--|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)                  |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)              |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)          |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)          |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input type="checkbox"/> Depleted Matrix (F3)              |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)           |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7)        |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input checked="" type="checkbox"/> Redox Depressions (F8) |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)                 |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |  |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)
- ☐ 2 cm Muck (A10) (LRR B)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☒ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☒ **Restrictive Layer (if observed):**

Type: rock

Depth (inches): 3

**Hydric Soil Present?** Yes X No     

**Remarks:**

Rock layer at 3 inches appears imported - dark limestone unlike deeper calcic layers seen nearby. Soil fits hydric indicator F8. Not truly a depressional landform, but seems to exhibit some functionality through ponding.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input checked="" type="checkbox"/> Surface Water (A1)             | <input type="checkbox"/> Salt Crust (B11)                              |
| <input checked="" type="checkbox"/> High Water Table (A2)          | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input checked="" type="checkbox"/> Saturation (A3)                | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)
- ☐ Sediment Deposits (B2) (Riverine)
- ☐ Drift Deposits (B3) (Riverine)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Shallow Aquitard (D3)
- ☒ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present?	Yes <u>X</u> No <u>    </u>	Depth (inches): <u>1</u>
Water Table Present?	Yes <u>X</u> No <u>    </u>	Depth (inches): <u>0</u>
Saturation Present?	Yes <u>X</u> No <u>    </u>	Depth (inches): <u>0</u>

(includes capillary fringe)

**Wetland Hydrology Present?** Yes X No     

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

**Remarks:**

Site fully inundated and saturated.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 5/11/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: \_\_\_\_\_ Sampling Point: 07-N-201205111047  
 Investigators: Ron Kass Paul Dawson Section, Township, Range S 5 T 4 R 2  
 Landform (hillslope, terrace, etc.): Toe of Slope Local Relief (concave, convex, none): None Slope(%) 5  
 Subregion (LRR): LRR D Lat: 41.1065492162 Long: -112.095782579 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Parleys loam, 6 to 10 percent slopes NWI Classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland?	Yes _____ No <u>X</u>
Hydric Soil Present?	Yes _____ No <u>X</u>		
Wetland Hydrology Present?	Yes _____ No <u>X</u>		Wetland ID: _____

Remarks:  
 Sampling point does not contain hydrophytic vegetation, hydric soils, or evidence of wetland hydrology.

## VEGETATION— Use scientific names of plants.

**Absolute  
% Cover** **Dominant  
Species** **Indicator  
Status**

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

Thinopyrum ponticum	55	Y	UPL
Lepidium latifolium	25	Y	FAC
	80	=Total Cover	

### Vine Stratum

## Dominance Test Worksheet:

Number of Dominant Species  
That are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant  
Species Across all Strata: 2 (B)

Percent of Dominant Species  
That are OBL, FACW, or FAC: 50.0% (A/B)

## Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>0</u>	x 2 = <u>0</u>
FAC species <u>25</u>	x 3 = <u>75</u>
FACU species <u>0</u>	x 4 = <u>0</u>
UPL species <u>55</u>	x 5 = <u>275</u>
Column Totals: <u>80</u> (A)	<u>350</u> (B)

Prevalence Index = B/A= 4.38

## Hydrophytic Vegetation Indicators:

\_\_\_\_ Rapid Test for Hydrophytic Vegetation  
 \_\_\_\_ Dominance Test > 50%  
 \_\_\_\_ Prevalence Index ≤ 3.0  
 \_\_\_\_ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 \_\_\_\_ Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic  
Vegetation Present?** Yes \_\_\_\_\_ No X

% Bare Ground in Herb Stratum 10 % Cover of Biotic Crust

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation is not hydrophytic because wheatgrass is dominant.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 18	10YR	4.0 / 2		100			SILT LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)           |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)       |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)   |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)   |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input type="checkbox"/> Depleted Matrix (F3)       |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)     |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)          |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |   |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- |   |
|---|
| <input type="checkbox"/> 1 cm Muck (A9) (LRR C)     |
| <input type="checkbox"/> 2 cm Muck (A10) (LRR B)    |
| <input type="checkbox"/> Reduced Vertic (F18)       |
| <input type="checkbox"/> Red Parent Material (TF2)  |
| <input type="checkbox"/> Other (Explain in Remarks) |

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No X

## Remarks:

No hydric indicators observed in soil profile.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- |   |
|---|
| <input type="checkbox"/> Water Marks (B1) (Riverine)            |
| <input type="checkbox"/> Sediment Deposits (B2) (Riverine)      |
| <input type="checkbox"/> Drift Deposits (B3) (Riverine)         |
| <input type="checkbox"/> Drainage Patterns (B10)                |
| <input type="checkbox"/> Dry-Season Water Table (C2)            |
| <input type="checkbox"/> Crayfish Burrows (C8)                  |
| <input type="checkbox"/> Saturation Visible on Aerial Imag.(C9) |
| <input type="checkbox"/> Shallow Aquitard (D3)                  |
| <input type="checkbox"/> FAC-Neutral Test (D5)                  |

**Field Observations:**Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Water Table Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Saturation Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_

(includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

No hydrology indicators observed.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 7/13/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: \_\_\_\_\_ Sampling Point: 07-N-201207131130  
 Investigators: Mike Perkins Nate Nichols Section, Township, Range S 5 T 4 R 2  
 Landform (hillslope, terrace, etc.): Toe of Slope Local Relief (concave, convex, none): Convex Slope(%) 1  
 Subregion (LRR): LRR D Lat: 41.1104313406 Long: -112.099559508 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Ford loam, shallow water table, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> <b>Wetland ID:</b> _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	

Remarks:  
 Site appears to be upland though hydrophytic vegetation is present. No hydric soil or wetland hydrology was observed.

## VEGETATION— Use scientific names of plants.

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
Juncus arcticus	20	Y	FACW
Solanum dulcamara	20	Y	FAC
Dipsacus fullonum	15	Y	FAC
Lepidium latifolium	15	Y	FAC
Phalaris arundinacea	15	Y	FACW
	85	=Total Cover	

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 5 (A)

Total Number of Dominant Species Across all Strata: 5 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>35</u>	x 2 = <u>70</u>
FAC species <u>50</u>	x 3 = <u>150</u>
FACU species <u>0</u>	x 4 = <u>0</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>85</u> (A)	<u>220</u> (B)

Prevalence Index = B/A = 2.59

### Hydrophytic Vegetation Indicators:

\_\_\_\_ Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
 \_\_\_\_ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 \_\_\_\_ Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No \_\_\_\_\_

% Bare Ground in Herb Stratum 5 % Cover of Biotic Crust \_\_\_\_\_

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation is hydrophytic.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)**

Depth (inches)	Matrix			Redox Features				Texture	Remarks
	Color (moist)		%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 6	10YR	3.0/ 2	100					SILTY CLAY LOAM	
6 to 11	10YR	3.0/ 3	100					SANDY CLAY LOAM	
11 to 18	10YR	4.0/ 3	100					CLAY LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)           |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)       |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)   |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)   |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input type="checkbox"/> Depleted Matrix (F3)       |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)     |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)          |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |   |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)  
☐ 2 cm Muck (A10) (LRR B)  
☐ Reduced Vertic (F18)  
☐ Red Parent Material (TF2)  
☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No X

## Remarks:

No hydric soil indicators observed.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)  
☐ Sediment Deposits (B2) (Riverine)  
☐ Drift Deposits (B3) (Riverine)  
☐ Drainage Patterns (B10)  
☐ Dry-Season Water Table (C2)  
☐ Crayfish Burrows (C8)  
☐ Saturation Visible on Aerial Imag.(C9)  
☐ Shallow Aquitard (D3)  
☒ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present?	Yes _____ No <u>X</u>	Depth (inches):	_____
Water Table Present?	Yes _____ No <u>X</u>	Depth (inches):	_____
Saturation Present?	Yes _____ No <u>X</u>	Depth (inches):	_____

(includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

No wetland hydrology.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 7/13/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: \_\_\_\_\_ Sampling Point: 07-N-201207131257  
 Investigators: Mike Perkins Nate Nichols Section, Township, Range S 5 T 4 R 2  
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): None Slope(%) 0  
 Subregion (LRR): LRR D Lat: 41.1104826317 Long: -112.101909587 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Warm Springs fine sandy loam, saline, sodic, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u>  <b>Wetland ID:</b> _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	

Remarks:  
 Upland vegetation sample point; no soil data were taken.

## VEGETATION— Use scientific names of plants.

	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
<u>Tree Stratum</u>			
<u>Shrub Stratum</u>			
<u>Herb Stratum</u> (Plot size: <u>30 Ft</u> )			
Thinopyrum intermedium	85	Y	UPL
Distichlis spicata	5	N	FAC
	90 =Total Cover		
<u>Vine Stratum</u>			

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 0 (A)  
 Total Number of Dominant Species Across all Strata: 1 (B)  
 Percent of Dominant Species That are OBL, FACW, or FAC: 0.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>0</u>	x 2 = <u>0</u>
FAC species <u>5</u>	x 3 = <u>15</u>
FACU species <u>0</u>	x 4 = <u>0</u>
UPL species <u>85</u>	x 5 = <u>425</u>
Column Totals: <u>90</u> (A)	<u>440</u> (B)
Prevalence Index = B/A= <u>4.89</u>	

### Hydrophytic Vegetation Indicators:

☐ Rapid Test for Hydrophytic Vegetation  
☐ Dominance Test > 50%  
☐ Prevalence Index ≤ 3.0  
☐ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
☐ Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes \_\_\_\_\_ No X

% Bare Ground in Herb Stratum 10 % Cover of Biotic Crust

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation community is mostly wheatgrass.



**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)           |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)       |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)   |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)   |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input type="checkbox"/> Depleted Matrix (F3)       |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)     |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)          |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |   |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)  
☐ 2 cm Muck (A10) (LRR B)  
☐ Reduced Vertic (F18)  
☐ Red Parent Material (TF2)  
☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No X

Remarks:  
No soil data were taken.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)  
☐ Sediment Deposits (B2) (Riverine)  
☐ Drift Deposits (B3) (Riverine)  
☐ Drainage Patterns (B10)  
☐ Dry-Season Water Table (C2)  
☐ Crayfish Burrows (C8)  
☐ Saturation Visible on Aerial Imag.(C9)  
☐ Shallow Aquitard (D3)  
☐ FAC-Neutral Test (D5)

**Field Observations:**Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Water Table Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Saturation Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_

(includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:  
No surface wetland hydrology was observed.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 5/11/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: \_\_\_\_\_ Sampling Point: 07-W-201205111010  
 Investigators: Ron Kass Paul Dawson Section, Township, Range S 5 T 4 R 2  
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): None Slope(%) 1  
 Subregion (LRR): LRR D Lat: 41.1059800168 Long: -112.095706604 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Ford loam, shallow water table, 0 to 1 percent slopes NWI Classification: PEMC

Are climatic / hydrologic conditions on the site typical for this time of year? Yes \_\_\_\_\_ No X (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ <b>Wetland ID:</b> <u>07-W-41</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks:  
 Wet meadow pasture, near an old, abandoned ditch.

## VEGETATION— Use scientific names of plants.

**Absolute % Cover** **Dominant Species** **Indicator Status**

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

Juncus arcticus	60	Y	FACW
Agrostis stolonifera	25	Y	FACW
Festuca arundinacea	15	N	FACU
	100	=Total Cover	

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 2 (A)  
 Total Number of Dominant Species Across all Strata: 2 (B)  
 Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>85</u>	x 2 = <u>170</u>
FAC species <u>0</u>	x 3 = <u>0</u>
FACU species <u>15</u>	x 4 = <u>60</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>100</u> (A)	<u>230</u> (B)

Prevalence Index = B/A = 2.30

### Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
 Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No \_\_\_\_\_

% Bare Ground in Herb Stratum 0 % Cover of Biotic Crust

Remarks: (Include photo numbers here or on a separate sheet.)

Rush and bentgrass community, with some fescue.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
to	/							
0 to 3	10YR	4 / 3	100				LOAM	with roots and organics
3 to 13	10YR	5 / 1	98	Gley1 3/N	2	C	M	SILT LOAM
13 to 16	10YR	5 / 2	90	10YR 5/6	10	C	PL	SILTY CLAY LOAM
16 to 18	10YR	2 / 1	100					SILTY CLAY LOAM

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |  |
|--|--|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)                |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)            |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)        |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)        |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input checked="" type="checkbox"/> Depleted Matrix (F3) |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)         |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7)      |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)          |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)               |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |  |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- |   |
|---|
| <input type="checkbox"/> 1 cm Muck (A9) (LRR C)     |
| <input type="checkbox"/> 2 cm Muck (A10) (LRR B)    |
| <input type="checkbox"/> Reduced Vertic (F18)       |
| <input type="checkbox"/> Red Parent Material (TF2)  |
| <input type="checkbox"/> Other (Explain in Remarks) |

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes X No \_\_\_\_\_**Remarks:**

Soil fits criteria for hydric indicator F3, Depleted Matrix.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input checked="" type="checkbox"/> High Water Table (A2)          | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input checked="" type="checkbox"/> Saturation (A3)                | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- |  |
|--|
| <input type="checkbox"/> Water Marks (B1) (Riverine)             |
| <input type="checkbox"/> Sediment Deposits (B2) (Riverine)       |
| <input type="checkbox"/> Drift Deposits (B3) (Riverine)          |
| <input type="checkbox"/> Drainage Patterns (B10)                 |
| <input type="checkbox"/> Dry-Season Water Table (C2)             |
| <input type="checkbox"/> Crayfish Burrows (C8)                   |
| <input type="checkbox"/> Saturation Visible on Aerial Imag. (C9) |
| <input type="checkbox"/> Shallow Aquitard (D3)                   |
| <input checked="" type="checkbox"/> FAC-Neutral Test (D5)        |

**Field Observations:**

Surface Water Present?	Yes _____ No <u>X</u>	Depth (inches): _____
Water Table Present?	Yes <u>X</u> No _____	Depth (inches): <u>12</u>
Saturation Present?	Yes <u>X</u> No _____	Depth (inches): <u>8</u>

(includes capillary fringe)

**Wetland Hydrology Present?** Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

**Remarks:**

Saturation and water table indicate wetland hydrology.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 7/13/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: \_\_\_\_\_ Sampling Point: 07-W-201207131150  
 Investigators: Mike Perkins Nate Nichols Section, Township, Range S 5 T 4 R 2  
 Landform (hillslope, terrace, etc.): Toe of Slope Local Relief (concave, convex, none): Convex Slope(%) 10  
 Subregion (LRR): LRR D Lat: 41.109770562 Long: -112.099469699 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Ford loam, shallow water table, 0 to 1 percent slopes NWI Classification: PEMC  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes \_\_\_\_\_ No X  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology X, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ <b>Wetland ID:</b> <u>07-W-38</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes _____ No <u>X</u>	

Remarks:  
 Sample point suggests area is wetland because of the hydrophytic vegetation and hydric soils. However, no wetland hydrology was observed at this time of year.

## VEGETATION— Use scientific names of plants.

**Absolute % Cover** **Dominant Species** **Indicator Status**

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

Distichlis spicata	30	Y	FAC
Schoenoplectus pungens	20	Y	OBL
Juncus arcticus	15	N	FACW
Atriplex micrantha	5	N	UPL
Hordeum jubatum	5	N	FAC
Polypogon monspeliensis	5	N	FACW
	80	=Total Cover	

### Vine Stratum

## Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 2 (A)  
 Total Number of Dominant Species Across all Strata: 2 (B)  
 Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

## Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>20</u>	x 1 = <u>20</u>
FACW species <u>20</u>	x 2 = <u>40</u>
FAC species <u>35</u>	x 3 = <u>105</u>
FACU species <u>0</u>	x 4 = <u>0</u>
UPL species <u>5</u>	x 5 = <u>25</u>
Column Totals: <u>80</u> (A)	<u>190</u> (B)
Prevalence Index = B/A= <u>2.38</u>	

## Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
 Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No \_\_\_\_\_

% Bare Ground in Herb Stratum 5 % Cover of Biotic Crust \_\_\_\_\_

Remarks: (Include photo numbers here or on a separate sheet.)

Community is mostly salt grass and common three-square.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 5	10YR	3.0 / 1					SILT LOAM	
5 to 14	10YR	6.0 / 1					CLAY	
14 to 18	10YR	8.0 / 1					CLAY	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |  |
|--|--|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)                |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)            |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)        |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)        |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input checked="" type="checkbox"/> Depleted Matrix (F3) |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)         |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7)      |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)          |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)               |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |  |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- |   |
|---|
| <input type="checkbox"/> 1 cm Muck (A9) (LRR C)     |
| <input type="checkbox"/> 2 cm Muck (A10) (LRR B)    |
| <input type="checkbox"/> Reduced Vertic (F18)       |
| <input type="checkbox"/> Red Parent Material (TF2)  |
| <input type="checkbox"/> Other (Explain in Remarks) |

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes   X   No       Remarks:  
Soil meets hydric indicator F3.**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- |   |
|---|
| <input type="checkbox"/> Water Marks (B1) (Riverine)            |
| <input type="checkbox"/> Sediment Deposits (B2) (Riverine)      |
| <input type="checkbox"/> Drift Deposits (B3) (Riverine)         |
| <input type="checkbox"/> Drainage Patterns (B10)                |
| <input type="checkbox"/> Dry-Season Water Table (C2)            |
| <input type="checkbox"/> Crayfish Burrows (C8)                  |
| <input type="checkbox"/> Saturation Visible on Aerial Imag.(C9) |
| <input type="checkbox"/> Shallow Aquitard (D3)                  |
| <input checked="" type="checkbox"/> FAC-Neutral Test (D5)       |

**Field Observations:**

Surface Water Present?	Yes <u>      </u>	No <u>  X  </u>	Depth (inches):	<u>      </u>
Water Table Present?	Yes <u>      </u>	No <u>  X  </u>	Depth (inches):	<u>      </u>
Saturation Present?	Yes <u>      </u>	No <u>  X  </u>	Depth (inches):	<u>      </u>

(includes capillary fringe)

**Wetland Hydrology Present?** Yes        No   X  

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:  
Currently dry but hydrology likely earlier in season.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 7/13/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet:  Sampling Point: 07-W-201207131231  
 Investigators: Donovan Gross Section, Township, Range S 5 T 4 R 2  
 Landform (hillslope, terrace, etc.): Basin Local Relief (concave, convex, none): Concave Slope(%) 5  
 Subregion (LRR): LRR D Lat: 41.1092877091 Long: -112.09844959 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Ford loam, shallow water table, 0 to 1 percent slopes NWI Classification: PEMC

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No  (If No, explain in Remarks)  
 Are Vegetation , Soil , Hydrology , significantly disturbed? Are "Normal Circumstances" present? Yes X No   
 Are Vegetation , Soil , Hydrology , naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No <u></u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No <u></u> <b>Wetland ID:</b> <u>07-W-42</u>
Hydric Soil Present? Yes <u>X</u> No <u></u>	
Wetland Hydrology Present? Yes <u>X</u> No <u></u>	

Remarks:  
 Sampling point is a wetland.

## VEGETATION— Use scientific names of plants.

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
Phragmites australis	45	Y	FACW
Schoenoplectus pungens	30	Y	OBL
Atriplex micrantha	10	N	UPL
	85	=Total Cover	

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across all Strata: 2 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>30</u>	x 1 = <u>30</u>
FACW species <u>45</u>	x 2 = <u>90</u>
FAC species <u>0</u>	x 3 = <u>0</u>
FACU species <u>0</u>	x 4 = <u>0</u>
UPL species <u>10</u>	x 5 = <u>50</u>
Column Totals: <u>85</u> (A)	<u>170</u> (B)

Prevalence Index = B/A = 2.00

### Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
X Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No

% Bare Ground in Herb Stratum 0 % Cover of Biotic Crust 0

Remarks: (Include photo numbers here or on a separate sheet.)



**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix			Redox Features				Texture	Remarks
	Color (moist)		%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 9	10YR	4.0 / 2	100					CLAY LOAM	
9 to 18	2.5Y	5.0 / 2	95	Gley1 2.5/n	5	C	M	CLAY	Mn

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |  |
|--|--|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)                |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)            |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)        |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)        |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input checked="" type="checkbox"/> Depleted Matrix (F3) |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)         |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7)      |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)          |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)               |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |  |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)  
☐ 2 cm Muck (A10) (LRR B)  
☐ Reduced Vertic (F18)  
☐ Red Parent Material (TF2)  
☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes   X   No       

Remarks:  
Soil profile meets F3 indicator.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input checked="" type="checkbox"/> Saturation (A3)                | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)  
☐ Sediment Deposits (B2) (Riverine)  
☐ Drift Deposits (B3) (Riverine)  
☐ Drainage Patterns (B10)  
☐ Dry-Season Water Table (C2)  
☐ Crayfish Burrows (C8)  
☐ Saturation Visible on Aerial Imag.(C9)  
☐ Shallow Aquitard (D3)  
☒ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present?	Yes <u>      </u>	No <u>  X  </u>	Depth (inches):	_____
Water Table Present?	Yes <u>      </u>	No <u>  X  </u>	Depth (inches):	_____
Saturation Present?	Yes <u>  X  </u>	No <u>      </u>	Depth (inches):	<u>      11      </u>

(includes capillary fringe)

**Wetland Hydrology Present?** Yes   X   No       

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 7/13/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: \_\_\_\_\_ Sampling Point: 07-W-201207131305  
 Investigators: Mike Perkins Nate Nichols Section, Township, Range S 5 T 4 R 2  
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): None Slope(%) 0  
 Subregion (LRR): LRR D Lat: 41.1103318264 Long: -112.101739823 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Warm Springs fine sandy loam, saline, sodic, 0 to 1 percent slopes NWI Classification: PEMC  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes \_\_\_\_\_ No X  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology X, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ <b>Wetland ID:</b> <u>07-W-39</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes _____ No <u>X</u>	

Remarks:  
 Data point contained hydrophytic vegetation and hydric soil, but no wetland hydrology was apparent at this time of year. Seasonal hydrology likely earlier in year.

## VEGETATION— Use scientific names of plants.

	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
<u>Tree Stratum</u>			
<u>Shrub Stratum</u>			
<u>Herb Stratum</u> (Plot size: <u>30 Ft</u> )			
Juncus arcticus	60	Y	FACW
Distichlis spicata	35	Y	FAC
Rumex crispus	5	N	FAC
	100	=Total Cover	
<u>Vine Stratum</u>			

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 2 (A)  
 Total Number of Dominant Species Across all Strata: 2 (B)  
 Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>60</u>	x 2 = <u>120</u>
FAC species <u>40</u>	x 3 = <u>120</u>
FACU species <u>0</u>	x 4 = <u>0</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>100</u> (A)	<u>240</u> (B)
Prevalence Index = B/A= <u>2.40</u>	

### Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
 Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No \_\_\_\_\_

% Bare Ground in Herb Stratum 5 % Cover of Biotic Crust

Remarks: (Include photo numbers here or on a separate sheet.)

Mostly rush with some salt grass.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 4	10YR	3.0 / 2	100				CLAY LOAM	
4 to 14	10YR	5.0 / 2	95	10YR 3/1	5	C	PL	CLAY LOAM

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- ☐ Histosol (A1)  
☐ Histic Epipedon (A2)  
☐ Black Histic (A3)  
☐ Hydrogen Sulfide (A4)  
☐ Stratified Layers (A5) LRR C  
☐ 1 cm Muck (A9) LRR F D  
☒ Depleted Below Dark Surface (A11)  
☐ Thick Dark Surface (A12)  
☐ Sandy Mucky Mineral (S1)  
☐ Sandy Gleyed Matrix (S4)

- ☐ Sandy Redox (S5)  
☐ Stripped Matrix (S6)  
☐ Loamy Mucky Mineral (F1)  
☐ Loamy Gleyed Matrix (F2)  
☐ Depleted Matrix (F3)  
☐ Redox Dark Surface (F6)  
☐ Depleted Dark Surface (F7)  
☐ Redox Depressions (F8)  
☐ Vernal Pools (F9)

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)  
☐ 2 cm Muck (A10) (LRR B)  
☐ Reduced Vertic (F18)  
☐ Red Parent Material (TF2)  
☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes X No \_\_\_\_\_

## Remarks:

Soil appears to fit hydric indicator A11.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)  
☐ High Water Table (A2)  
☐ Saturation (A3)  
☐ Water Marks (B1) (Nonriverine)  
☐ Sediment Deposits (B2) (Nonriverine)  
☐ Drift Deposits (B3) (Nonriverine)  
☐ Surface Soil Cracks (B6)  
☐ Inundation Visible on Aerial Imagery (B7)  
☐ Water-Stained Leaves (B9)  
☐ Salt Crust (B11)  
☐ Biotic Crust (B12)  
☐ Aquatic Fauna (B13)  
☐ Hydrogen Sulfide Odor (C1)  
☐ Oxidized Rhizospheres along Living Roots (C3)  
☐ Presence of Reduced Iron (C4)  
☐ Recent Iron Reduction in Tilled Soils (C6)  
☐ Thin Muck Surface (C7)  
☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)  
☐ Sediment Deposits (B2) (Riverine)  
☐ Drift Deposits (B3) (Riverine)  
☐ Drainage Patterns (B10)  
☐ Dry-Season Water Table (C2)  
☐ Crayfish Burrows (C8)  
☐ Saturation Visible on Aerial Imag.(C9)  
☐ Shallow Aquitard (D3)  
☒ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_  
Water Table Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_  
Saturation Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_  
(includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

Area currently dry but during dry time of year for a seasonal wetland.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 5/11/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 1 Sampling Point: 08-N-201205111032  
 Investigators: Donovan Gross Brian Nicholson Section, Township, Range S 8 T 4 R 2  
 Landform (hillslope, terrace, etc.): Basin Local Relief (concave, convex, none): None Slope(%) 10  
 Subregion (LRR): LRR D Lat: 41.1005801157 Long: -112.089699054 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Ford loam, shallow water table, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil X, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes \_\_\_\_\_ No X  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> Wetland ID: _____
Hydric Soil Present?	Yes _____ No <u>X</u>	
Wetland Hydrology Present?	Yes _____ No <u>X</u>	

Remarks:  
 Weedy upland fill pile.

## VEGETATION— Use scientific names of plants.

	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
<u>Tree Stratum</u>			
<u>Shrub Stratum</u>			
<u>Herb Stratum</u> (Plot size: <u>30 Ft</u> )			
Chenopodium album	50	Y	FACU
Cardaria draba	40	Y	UPL
	90	=Total Cover	
<u>Vine Stratum</u>			

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 0 (A)  
 Total Number of Dominant Species Across all Strata: 2 (B)  
 Percent of Dominant Species That are OBL, FACW, or FAC: 0.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	<u>0</u>	x 1 =	<u>0</u>
FACW species	<u>0</u>	x 2 =	<u>0</u>
FAC species	<u>0</u>	x 3 =	<u>0</u>
FACU species	<u>50</u>	x 4 =	<u>200</u>
UPL species	<u>40</u>	x 5 =	<u>200</u>
Column Totals:	<u>90</u> (A)		<u>400</u> (B)
Prevalence Index = B/A= <u>4.44</u>			

### Hydrophytic Vegetation Indicators:

☐ Rapid Test for Hydrophytic Vegetation  
☐ Dominance Test > 50%  
☐ Prevalence Index ≤ 3.0  
☐ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
☐ Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes \_\_\_\_\_ No X

% Bare Ground in Herb Stratum 10 % Cover of Biotic Crust \_\_\_\_\_

Remarks: (Include photo numbers here or on a separate sheet.)

Weedy upland vegetation.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)           |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)       |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)   |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)   |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input type="checkbox"/> Depleted Matrix (F3)       |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)     |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)          |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |   |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- |   |
|---|
| <input type="checkbox"/> 1 cm Muck (A9) (LRR C)     |
| <input type="checkbox"/> 2 cm Muck (A10) (LRR B)    |
| <input type="checkbox"/> Reduced Vertic (F18)       |
| <input type="checkbox"/> Red Parent Material (TF2)  |
| <input type="checkbox"/> Other (Explain in Remarks) |

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No X**Remarks:**

Fill material with upland vegetation so no soil data collected.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- |   |
|---|
| <input type="checkbox"/> Water Marks (B1) (Riverine)            |
| <input type="checkbox"/> Sediment Deposits (B2) (Riverine)      |
| <input type="checkbox"/> Drift Deposits (B3) (Riverine)         |
| <input type="checkbox"/> Drainage Patterns (B10)                |
| <input type="checkbox"/> Dry-Season Water Table (C2)            |
| <input type="checkbox"/> Crayfish Burrows (C8)                  |
| <input type="checkbox"/> Saturation Visible on Aerial Imag.(C9) |
| <input type="checkbox"/> Shallow Aquitard (D3)                  |
| <input type="checkbox"/> FAC-Neutral Test (D5)                  |

**Field Observations:**Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Water Table Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Saturation Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_

(includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

**Remarks:**

Dry. No evidence of wetland hydrology.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 5/11/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: \_\_\_\_\_ Sampling Point: 08-N-201205111110  
 Investigators: Ron Kass Paul Dawson Section, Township, Range S 5 T 4 R 2  
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): None Slope(%) 2  
 Subregion (LRR): LRR D Lat: 41.1042305898 Long: -112.094095449 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Ford loam, shallow water table, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland?	Yes _____ No <u>X</u>
Hydric Soil Present?	Yes _____ No <u>X</u>		
Wetland Hydrology Present?	Yes _____ No <u>X</u>		Wetland ID: _____

Remarks:  
 Upland data point. Soils and hydrology fail.

## VEGETATION— Use scientific names of plants.

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
Thinopyrum ponticum	50	Y	UPL
Atriplex micrantha	10	N	UPL
Conyza bonariensis	5	N	FACU
Lactuca serriola	5	N	FACU
Schoenoplectus pungens	5	N	OBL
	75	=Total Cover	

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species  
That are OBL, FACW, or FAC: 0 (A)  
 Total Number of Dominant  
Species Across all Strata: 1 (B)  
 Percent of Dominant Species  
That are OBL, FACW, or FAC: 0.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>5</u>	x 1 = <u>5</u>
FACW species <u>0</u>	x 2 = <u>0</u>
FAC species <u>0</u>	x 3 = <u>0</u>
FACU species <u>10</u>	x 4 = <u>40</u>
UPL species <u>60</u>	x 5 = <u>300</u>
Column Totals: <u>75</u> (A)	<u>345</u> (B)
Prevalence Index = B/A= <u>4.60</u>	

### Hydrophytic Vegetation Indicators:

\_\_\_\_ Rapid Test for Hydrophytic Vegetation  
 \_\_\_\_ Dominance Test > 50%  
 \_\_\_\_ Prevalence Index ≤ 3.0  
 \_\_\_\_ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 \_\_\_\_ Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic  
Vegetation Present?** Yes \_\_\_\_\_ No X

% Bare Ground in Herb Stratum \_\_\_\_\_ % Cover of Biotic Crust \_\_\_\_\_

Remarks: (Include photo numbers here or on a separate sheet.)

Upland vegetation.



**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 18	10YR	4.0 / 2		100			SILT LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)           |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)       |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)   |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)   |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input type="checkbox"/> Depleted Matrix (F3)       |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)     |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)          |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |   |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- |   |
|---|
| <input type="checkbox"/> 1 cm Muck (A9) (LRR C)     |
| <input type="checkbox"/> 2 cm Muck (A10) (LRR B)    |
| <input type="checkbox"/> Reduced Vertic (F18)       |
| <input type="checkbox"/> Red Parent Material (TF2)  |
| <input type="checkbox"/> Other (Explain in Remarks) |

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No XRemarks:  
No hydric soil indicators observed.**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- |   |
|---|
| <input type="checkbox"/> Water Marks (B1) (Riverine)            |
| <input type="checkbox"/> Sediment Deposits (B2) (Riverine)      |
| <input type="checkbox"/> Drift Deposits (B3) (Riverine)         |
| <input type="checkbox"/> Drainage Patterns (B10)                |
| <input type="checkbox"/> Dry-Season Water Table (C2)            |
| <input type="checkbox"/> Crayfish Burrows (C8)                  |
| <input type="checkbox"/> Saturation Visible on Aerial Imag.(C9) |
| <input type="checkbox"/> Shallow Aquitard (D3)                  |
| <input type="checkbox"/> FAC-Neutral Test (D5)                  |

**Field Observations:**Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Water Table Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Saturation Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_

(includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:  
No wetland hydrology.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 5/11/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: 1 Sampling Point: 08-W-20120511004  
 Investigators: Donovan Gross Brian Nicholson Section, Township, Range S 8 T 4 R 2  
 Landform (hillslope, terrace, etc.): Basin Local Relief (concave, convex, none): Concave Slope(%) 2  
 Subregion (LRR): LRR D Lat: 41.1005585993 Long: -112.089705848 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Ford loam, shallow water table, 0 to 1 percent slopes NWI Classification: PEMA  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No        (If No, explain in Remarks)  
 Are Vegetation       , Soil       , Hydrology       , significantly disturbed? Are "Normal Circumstances" present? Yes X No         
 Are Vegetation       , Soil       , Hydrology       , naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No <u>      </u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No <u>      </u> Wetland ID: <u>08-W-27</u>
Hydric Soil Present? Yes <u>X</u> No <u>      </u>	
Wetland Hydrology Present? Yes <u>X</u> No <u>      </u>	

Remarks:  
 Emergent marsh adjacent to golf course.

## VEGETATION— Use scientific names of plants.

	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
<u>Tree Stratum</u>			
<u>Shrub Stratum</u> (Plot size: <u>30 Ft</u> )			
<u>Elaeagnus angustifolia</u>	<u>10</u>	<u>Y</u>	<u>FAC</u>
	<u>10</u>	=Total Cover	
<u>Herb Stratum</u> (Plot size: <u>30 Ft</u> )			
<u>Phragmites australis</u>	<u>30</u>	<u>Y</u>	<u>FACW</u>
<u>Typha latifolia</u>	<u>30</u>	<u>Y</u>	<u>OBL</u>
<u>Eleocharis palustris</u>	<u>10</u>	<u>N</u>	<u>OBL</u>
<u>Elymus repens</u>	<u>10</u>	<u>N</u>	<u>FAC</u>
<u>Schoenoplectus pungens</u>	<u>10</u>	<u>N</u>	<u>OBL</u>
	<u>90</u>	=Total Cover	
<u>Vine Stratum</u>			

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 3 (A)  
 Total Number of Dominant Species Across all Strata: 3 (B)  
 Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>50</u>	x 1 = <u>50</u>
FACW species <u>30</u>	x 2 = <u>60</u>
FAC species <u>20</u>	x 3 = <u>60</u>
FACU species <u>0</u>	x 4 = <u>0</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>100</u> (A)	<u>170</u> (B)

Prevalence Index = B/A = 1.70

### Hydrophytic Vegetation Indicators:

       Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
       Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
       Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No       

% Bare Ground in Herb Stratum 10 % Cover of Biotic Crust

Remarks: (Include photo numbers here or on a separate sheet.)  
 Emergent marsh vegetation with some Russian olive shrubs along the edges.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)**

Depth (inches)	Matrix			Redox Features				Texture	Remarks
	Color (moist)		%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 4	10YR	6.0 / 3	100					SANDY CLAY LOAM	
4 to 12	10YR	5.0 / 2	90	7.5YR 5/6	10	C	M	SILTY CLAY LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |  |
|--|--|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)                |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)            |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)        |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)        |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input checked="" type="checkbox"/> Depleted Matrix (F3) |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)         |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7)      |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)          |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)               |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |  |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- |   |
|---|
| <input type="checkbox"/> 1 cm Muck (A9) (LRR C)     |
| <input type="checkbox"/> 2 cm Muck (A10) (LRR B)    |
| <input type="checkbox"/> Reduced Vertic (F18)       |
| <input type="checkbox"/> Red Parent Material (TF2)  |
| <input type="checkbox"/> Other (Explain in Remarks) |

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes X No \_\_\_\_\_

## Remarks:

Appears to fit hydric soil indicator F3.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input checked="" type="checkbox"/> Surface Water (A1)             | <input type="checkbox"/> Salt Crust (B11)                              |
| <input checked="" type="checkbox"/> High Water Table (A2)          | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input checked="" type="checkbox"/> Saturation (A3)                | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input checked="" type="checkbox"/> Hydrogen Sulfide Odor (C1)         |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- |   |
|---|
| <input type="checkbox"/> Water Marks (B1) (Riverine)            |
| <input type="checkbox"/> Sediment Deposits (B2) (Riverine)      |
| <input type="checkbox"/> Drift Deposits (B3) (Riverine)         |
| <input checked="" type="checkbox"/> Drainage Patterns (B10)     |
| <input type="checkbox"/> Dry-Season Water Table (C2)            |
| <input type="checkbox"/> Crayfish Burrows (C8)                  |
| <input type="checkbox"/> Saturation Visible on Aerial Imag.(C9) |
| <input type="checkbox"/> Shallow Aquitard (D3)                  |
| <input checked="" type="checkbox"/> FAC-Neutral Test (D5)       |

**Field Observations:**

Surface Water Present?	Yes	<u>X</u>	No	_____	Depth (inches):	<u>6</u>
Water Table Present?	Yes	<u>X</u>	No	_____	Depth (inches):	<u>0</u>
Saturation Present?	Yes	<u>X</u>	No	_____	Depth (inches):	<u>0</u>

(includes capillary fringe)

**Wetland Hydrology Present?** Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

Surface water and saturated soils observed, indicating wetland hydrology.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 5/11/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: \_\_\_\_\_ Sampling Point: 06-N-201205111419  
 Investigators: Donovan Gross Brian Nicholson Section, Township, Range S 31 T 5 R 2  
 Landform (hillslope, terrace, etc.): Basin Local Relief (concave, convex, none): None Slope(%) 2  
 Subregion (LRR): LRR D Lat: 41.1203640036 Long: -112.109191063 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Warm Springs fine sandy loam, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> <b>Wetland ID:</b> _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	

Remarks:  
 Dry, upland area has hydrophytic vegetation, but does not contain hydric soils or evidence of wetland hydrology.

## VEGETATION— Use scientific names of plants.

	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
<u>Tree Stratum</u>			
<u>Shrub Stratum</u>			
<u>Herb Stratum</u> (Plot size: <u>30 Ft</u> )			
<u>Distichlis spicata</u>	<u>40</u>	<u>Y</u>	<u>FAC</u>
<u>Carex praegracilis</u>	<u>25</u>	<u>Y</u>	<u>FACW</u>
<u>Hordeum jubatum</u>	<u>25</u>	<u>Y</u>	<u>FAC</u>
	<u>90</u>	<u>=Total Cover</u>	
<u>Vine Stratum</u>			

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 3 (A)  
 Total Number of Dominant Species Across all Strata: 3 (B)  
 Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>25</u>	x 2 = <u>50</u>
FAC species <u>65</u>	x 3 = <u>195</u>
FACU species <u>0</u>	x 4 = <u>0</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>90</u> (A)	<u>245</u> (B)
Prevalence Index = B/A= <u>2.72</u>	

### Hydrophytic Vegetation Indicators:

   Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
   Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
   Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

% Bare Ground in Herb Stratum 5 % Cover of Biotic Crust \_\_\_\_\_

**Hydrophytic Vegetation Present?** Yes X No \_\_\_\_\_

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation is a hydrophytic, wet meadow community.

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 3	10YR	3.0 / 2					FINE SANDY LOAM	
3 to 7	10YR	4.0 / 2					SANDY CLAY LOAM	
7 to 18	10YR	5.0 / 3					SANDY CLAY LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators:**

☐ Histosol (A1)☐ Histic Epipedon (A2)☐ Black Histic (A3)☐ Hydrogen Sulfide (A4)☐ Stratified Layers (A5) LRR C☐ 1 cm Muck (A9) LRR F D☐ Depleted Below Dark Surface (A11)☐ Thick Dark Surface (A12)☐ Sandy Mucky Mineral (S1)☐ Sandy Gleyed Matrix (S4)☐ Sandy Redox (S5)☐ Stripped Matrix (S6)☐ Loamy Mucky Mineral (F1)☐ Loamy Gleyed Matrix (F2)☐ Depleted Matrix (F3)☐ Redox Dark Surface (F6)☐ Depleted Dark Surface (F7)☐ Redox Depressions (F8)☐ Vernal Pools (F9)

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

☐ 1 cm Muck (A9) (LRR C)☐ 2 cm Muck (A10) (LRR B)☐ Reduced Vertic (F18)☐ Red Parent Material (TF2)☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: Depth (inches):

Hydric Soil Present?

Yes  No 

X

Remarks:

No hydric soil indicators observed.

HYDROLOGY

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

☐ Surface Water (A1)☐ High Water Table (A2)☐ Saturation (A3)☐ Water Marks (B1) (Nonriverine)☐ Sediment Deposits (B2) (Nonriverine)☐ Drift Deposits (B3) (Nonriverine)☐ Surface Soil Cracks (B6)☐ Inundation Visible on Aerial Imagery (B7)☐ Water-Stained Leaves (B9)☐ Salt Crust (B11)☐ Biotic Crust (B12)☐ Aquatic Fauna (B13)☐ Hydrogen Sulfide Odor (C1)☐ Oxidized Rhizospheres along Living Roots (C3)☐ Presence of Reduced Iron (C4)☐ Recent Iron Reduction in Tilled Soils (C6)☐ Thin Muck Surface (C7)☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

☐ Water Marks (B1) (Riverine)☐ Sediment Deposits (B2) (Riverine)☐ Drift Deposits (B3) (Riverine)☐ Drainage Patterns (B10)☐ Dry-Season Water Table (C2)☐ Crayfish Burrows (C8)☐ Saturation Visible on Aerial Imag.(C9)☐ Shallow Aquitard (D3)☒ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present?

Yes  No 

X

Water Table Present?

Yes  No 

X

Saturation Present?

Yes  No 

X

(includes capillary fringe)

Depth (inches): 

--

Depth (inches): 

--

Depth (inches): 

20

Wetland Hydrology Present?

Yes  No 

X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Dry area lacks sufficient evidence for wetland hydrology, saturation too deep.

US Army Corps of Engineers

HDR

Arid West – Version 2.0

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 5/11/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: \_\_\_\_\_ Sampling Point: 06-N-201205111434  
 Investigators: Donovan Gross Brian Nicholson Section, Township, Range S 31 T 5 R 2  
 Landform (hillslope, terrace, etc.): \_\_\_\_\_ Local Relief (concave, convex, none): \_\_\_\_\_ Slope(%) \_\_\_\_\_  
 Subregion (LRR): LRR D Lat: 41.1206968768 Long: -112.109551106 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Warm Springs fine sandy loam, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> <b>Wetland ID:</b> _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	

Remarks:  
 Dry upland area has hydrophytic vegetation, but does not contain hydric soils or evidence of wetland hydrology.

## VEGETATION— Use scientific names of plants.

**Absolute % Cover** **Dominant Species** **Indicator Status**

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

Juncus arcticus	40	Y	FACW
Distichlis spicata	30	Y	FAC
Hordeum jubatum	10	N	FAC
	80	=Total Cover	

### Vine Stratum

## Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across all Strata: 2 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

## Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>40</u>	x 2 = <u>80</u>
FAC species <u>40</u>	x 3 = <u>120</u>
FACU species <u>0</u>	x 4 = <u>0</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>80</u> (A)	<u>200</u> (B)

Prevalence Index = B/A = 2.50

## Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
 \_\_\_\_\_ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 \_\_\_\_\_ Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No \_\_\_\_\_

% Bare Ground in Herb Stratum 5 % Cover of Biotic Crust \_\_\_\_\_

Remarks: (Include photo numbers here or on a separate sheet.)  
 Juncus and salt grass are dominant. Vegetation is hydrophytic, but low vigor.



**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 3	10YR	3 / 2	100				FINE SANDY LOAM	
3 to 7	10YR	4 / 2	100				SANDY CLAY LOAM	
7 to 18	10YR	5 / 2	100				SANDY CLAY LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- ☐ Histosol (A1)  
☐ Histic Epipedon (A2)  
☐ Black Histic (A3)  
☐ Hydrogen Sulfide (A4)  
☐ Stratified Layers (A5) LRR C  
☐ 1 cm Muck (A9) LRR F D  
☐ Depleted Below Dark Surface (A11)  
☐ Thick Dark Surface (A12)  
☐ Sandy Mucky Mineral (S1)  
☐ Sandy Gleyed Matrix (S4)

- ☐ Sandy Redox (S5)  
☐ Stripped Matrix (S6)  
☐ Loamy Mucky Mineral (F1)  
☐ Loamy Gleyed Matrix (F2)  
☐ Depleted Matrix (F3)  
☐ Redox Dark Surface (F6)  
☐ Depleted Dark Surface (F7)  
☐ Redox Depressions (F8)  
☐ Vernal Pools (F9)

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)  
☐ 2 cm Muck (A10) (LRR B)  
☐ Reduced Vertic (F18)  
☐ Red Parent Material (TF2)  
☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No X

## Remarks:

No hydric soil indicators observed.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)  
☐ High Water Table (A2)  
☐ Saturation (A3)  
☐ Water Marks (B1) (Nonriverine)  
☐ Sediment Deposits (B2) (Nonriverine)  
☐ Drift Deposits (B3) (Nonriverine)  
☐ Surface Soil Cracks (B6)  
☐ Inundation Visible on Aerial Imagery (B7)  
☐ Water-Stained Leaves (B9)  
☐ Salt Crust (B11)  
☐ Biotic Crust (B12)  
☐ Aquatic Fauna (B13)  
☐ Hydrogen Sulfide Odor (C1)  
☐ Oxidized Rhizospheres along Living Roots (C3)  
☐ Presence of Reduced Iron (C4)  
☐ Recent Iron Reduction in Tilled Soils (C6)  
☐ Thin Muck Surface (C7)  
☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)  
☐ Sediment Deposits (B2) (Riverine)  
☐ Drift Deposits (B3) (Riverine)  
☐ Drainage Patterns (B10)  
☐ Dry-Season Water Table (C2)  
☐ Crayfish Burrows (C8)  
☐ Saturation Visible on Aerial Imag.(C9)  
☐ Shallow Aquitard (D3)  
☒ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_  
Water Table Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_  
Saturation Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_  
(includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

Very dry area lacks sufficient evidence for wetland hydrology.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 5/11/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: \_\_\_\_\_ Sampling Point: 06-N-201205111446  
 Investigators: Donovan Gross Brian Nicholson Section, Township, Range S 31 T 5 R 2  
 Landform (hillslope, terrace, etc.): Basin Local Relief (concave, convex, none): None Slope(%) 20  
 Subregion (LRR): LRR D Lat: 41.1209532441 Long: -112.109939168 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Warm Springs fine sandy loam, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> <b>Wetland ID:</b> _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks:  
 Drainage feature appears to contain hydrophytic vegetation and wetland hydrology, but does not meet hydric soils criteria.

## VEGETATION— Use scientific names of plants.

	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
<u>Tree Stratum</u>			
<u>Shrub Stratum</u> (Plot size: <u>30 Ft</u> )			
<u>Elaeagnus angustifolia</u>	<u>25</u>	<u>Y</u>	<u>FAC</u>
<u>Rosa woodsii</u>	<u>5</u>	<u>N</u>	<u>FACU</u>
	<u>30</u> =Total Cover		
<u>Herb Stratum</u> (Plot size: <u>30 Ft</u> )			
<u>Elymus repens</u>	<u>50</u>	<u>Y</u>	<u>FAC</u>
<u>Juncus arcticus</u>	<u>20</u>	<u>Y</u>	<u>FACW</u>
	<u>70</u> =Total Cover		
<u>Vine Stratum</u>			

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 3 (A)  
 Total Number of Dominant Species Across all Strata: 3 (B)  
 Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>20</u>	x 2 = <u>40</u>
FAC species <u>75</u>	x 3 = <u>225</u>
FACU species <u>5</u>	x 4 = <u>20</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>100</u> (A)	<u>285</u> (B)

Prevalence Index = B/A= 2.85

### Hydrophytic Vegetation Indicators:

       Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
       Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
       Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No \_\_\_\_\_

% Bare Ground in Herb Stratum 0 % Cover of Biotic Crust 1

Remarks: (Include photo numbers here or on a separate sheet.)

Mix of quackgrass, rush, and shrubby Russian olive.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix			Redox Features				Texture	Remarks
	Color (moist)		%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 8	10YR	3.0/ 2	100					SILTY CLAY LOAM	
8 to 14	10YR	5.0/ 3	95	10YR 5/6	3	C	M	SANDY CLAY	
14 to 18	10YR	5.0/ 3	100					SANDY CLAY	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- ☐ Histosol (A1)  
☐ Histic Epipedon (A2)  
☐ Black Histic (A3)  
☐ Hydrogen Sulfide (A4)  
☐ Stratified Layers (A5) LRR C  
☐ 1 cm Muck (A9) LRR F D  
☐ Depleted Below Dark Surface (A11)  
☐ Thick Dark Surface (A12)  
☐ Sandy Mucky Mineral (S1)  
☐ Sandy Gleyed Matrix (S4)

- ☐ Sandy Redox (S5)  
☐ Stripped Matrix (S6)  
☐ Loamy Mucky Mineral (F1)  
☐ Loamy Gleyed Matrix (F2)  
☐ Depleted Matrix (F3)  
☐ Redox Dark Surface (F6)  
☐ Depleted Dark Surface (F7)  
☐ Redox Depressions (F8)  
☐ Vernal Pools (F9)

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)  
☐ 2 cm Muck (A10) (LRR B)  
☐ Reduced Vertic (F18)  
☐ Red Parent Material (TF2)  
☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No X

## Remarks:

Soil profile does not meet criteria for hydric indicators (Matrix chroma is 3, not 2).

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)  
☐ High Water Table (A2)  
☒ Saturation (A3)  
☐ Water Marks (B1) (Nonriverine)  
☐ Sediment Deposits (B2) (Nonriverine)  
☐ Drift Deposits (B3) (Nonriverine)  
☐ Surface Soil Cracks (B6)  
☐ Inundation Visible on Aerial Imagery (B7)  
☐ Water-Stained Leaves (B9)  
☐ Salt Crust (B11)  
☐ Biotic Crust (B12)  
☐ Aquatic Fauna (B13)  
☐ Hydrogen Sulfide Odor (C1)  
☐ Oxidized Rhizospheres along Living Roots (C3)  
☐ Presence of Reduced Iron (C4)  
☐ Recent Iron Reduction in Tilled Soils (C6)  
☐ Thin Muck Surface (C7)  
☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)  
☐ Sediment Deposits (B2) (Riverine)  
☐ Drift Deposits (B3) (Riverine)  
☒ Drainage Patterns (B10)  
☐ Dry-Season Water Table (C2)  
☐ Crayfish Burrows (C8)  
☐ Saturation Visible on Aerial Imag.(C9)  
☐ Shallow Aquitard (D3)  
☒ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_  
Water Table Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_  
Saturation Present? Yes X No \_\_\_\_\_ Depth (inches): 10  
(includes capillary fringe)

**Wetland Hydrology Present?** Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

Drainage feature by canal has evidence of hydrology.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 5/11/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: \_\_\_\_\_ Sampling Point: 06-N-201205111548  
 Investigators: Donovan Gross Brain Nicholson Section, Township, Range S 31 T 5 R 2  
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): None Slope(%) 0  
 Subregion (LRR): LRR D Lat: 41.1212497341 Long: -112.106645885 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Ford loam, shallow water table, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> <b>Wetland ID:</b> _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	

Remarks:  
 Horse pasture with wetland vegetation but lacks hydric soils and wetland hydrology.

## VEGETATION— Use scientific names of plants.

**Absolute % Cover** **Dominant Species** **Indicator Status**

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

Distichlis spicata	30	Y	FAC
Juncus arcticus	30	Y	FACW
Carex praegracilis	25	Y	FACW
Hordeum jubatum	5	N	FAC
	90	=Total Cover	

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 3 (A)  
 Total Number of Dominant Species Across all Strata: 3 (B)  
 Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>55</u>	x 2 = <u>110</u>
FAC species <u>35</u>	x 3 = <u>105</u>
FACU species <u>0</u>	x 4 = <u>0</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>90</u> (A)	<u>215</u> (B)
Prevalence Index = B/A= <u>2.39</u>	

### Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
 Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No \_\_\_\_\_

% Bare Ground in Herb Stratum 5 % Cover of Biotic Crust 0

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation is hydrophytic.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 2	10YR	3.0 / 3	100				SILTY CLAY LOAM	
2 to 7	10YR	4.0 / 1	100				SILTY CLAY	
7 to 16	10YR	4.0 / 3	100				SILT LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)           |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)       |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)   |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)   |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input type="checkbox"/> Depleted Matrix (F3)       |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)     |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)          |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |   |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- |   |
|---|
| <input type="checkbox"/> 1 cm Muck (A9) (LRR C)     |
| <input type="checkbox"/> 2 cm Muck (A10) (LRR B)    |
| <input type="checkbox"/> Reduced Vertic (F18)       |
| <input type="checkbox"/> Red Parent Material (TF2)  |
| <input type="checkbox"/> Other (Explain in Remarks) |

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No X

## Remarks:

Soils fail to show any hydric indicators.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- |   |
|---|
| <input type="checkbox"/> Water Marks (B1) (Riverine)            |
| <input type="checkbox"/> Sediment Deposits (B2) (Riverine)      |
| <input type="checkbox"/> Drift Deposits (B3) (Riverine)         |
| <input type="checkbox"/> Drainage Patterns (B10)                |
| <input type="checkbox"/> Dry-Season Water Table (C2)            |
| <input type="checkbox"/> Crayfish Burrows (C8)                  |
| <input type="checkbox"/> Saturation Visible on Aerial Imag.(C9) |
| <input type="checkbox"/> Shallow Aquitard (D3)                  |
| <input checked="" type="checkbox"/> FAC-Neutral Test (D5)       |

**Field Observations:**

Surface Water Present?	Yes _____ No <u>X</u>	Depth (inches): _____
Water Table Present?	Yes _____ No <u>X</u>	Depth (inches): _____
Saturation Present?	Yes _____ No <u>X</u>	Depth (inches): <u>24</u>

(includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

Not saturated until 24 inches. No wetland hydrology.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 5/16/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: \_\_\_\_\_ Sampling Point: 06-N-201205160905  
 Investigators: Donovan Gross Mike Perkins Section, Township, Range S 31 T 5 R 2  
 Landform (hillslope, terrace, etc.): Basin Local Relief (concave, convex, none): None Slope(%) 2  
 Subregion (LRR): LRR D Lat: 41.121151093 Long: -112.10640932 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Ford loam, shallow water table, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> <b>Wetland ID:</b> _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	

Remarks:  
 Non-wetland boundary point, just west of wetland point.

## VEGETATION— Use scientific names of plants.

	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
<u>Tree Stratum</u>			
<u>Shrub Stratum</u>			
<u>Herb Stratum</u> (Plot size: <u>30 Ft</u> )			
Carex praegracilis	40	Y	FACW
Poa pratensis	20	Y	FAC
Distichlis spicata	15	N	FAC
Juncus arcticus	10	N	FACW
Taraxacum officinale	5	N	FACU
Trifolium repens	5	N	FACU
	95	=Total Cover	

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 2 (A)  
 Total Number of Dominant Species Across all Strata: 2 (B)  
 Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>50</u>	x 2 = <u>100</u>
FAC species <u>35</u>	x 3 = <u>105</u>
FACU species <u>10</u>	x 4 = <u>40</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>95</u> (A)	<u>245</u> (B)
Prevalence Index = B/A= <u>2.58</u>	

### Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
 Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No \_\_\_\_\_

% Bare Ground in Herb Stratum 0 % Cover of Biotic Crust \_\_\_\_\_

Remarks: (Include photo numbers here or on a separate sheet.)  
 Vegetation is still hydrophytic with increasing FACU species (versus wetland to east).



Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 2	10YR	3.0 / 2					LOAM	
2 to 9	10YR	4.0 / 2					SANDY CLAY LOAM	
9 to 20	10YR	4.0 / 3					CLAY LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.      <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators:**

☐ Histosol (A1)☐ Histic Epipedon (A2)☐ Black Histic (A3)☐ Hydrogen Sulfide (A4)☐ Stratified Layers (A5) LRR C☐ 1 cm Muck (A9) LRR F D☐ Depleted Below Dark Surface (A11)☐ Thick Dark Surface (A12)☐ Sandy Mucky Mineral (S1)☐ Sandy Gleyed Matrix (S4)

☐ Sandy Redox (S5)☐ Stripped Matrix (S6)☐ Loamy Mucky Mineral (F1)☐ Loamy Gleyed Matrix (F2)☐ Depleted Matrix (F3)☐ Redox Dark Surface (F6)☐ Depleted Dark Surface (F7)☐ Redox Depressions (F8)☐ Vernal Pools (F9)

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

☐ 1 cm Muck (A9) (LRR C)☐ 2 cm Muck (A10) (LRR B)☐ Reduced Vertic (F18)☐ Red Parent Material (TF2)☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: Depth (inches):

**Hydric Soil Present?**      Yes       No 

X

Remarks:

No hydric indicators observed in soil profile.

HYDROLOGY

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

☐ Surface Water (A1)☐ High Water Table (A2)☐ Saturation (A3)☐ Water Marks (B1) (Nonriverine)☐ Sediment Deposits (B2) (Nonriverine)☐ Drift Deposits (B3) (Nonriverine)☐ Surface Soil Cracks (B6)☐ Inundation Visible on Aerial Imagery (B7)☐ Water-Stained Leaves (B9)

☐ Salt Crust (B11)☐ Biotic Crust (B12)☐ Aquatic Fauna (B13)☐ Hydrogen Sulfide Odor (C1)☐ Oxidized Rhizospheres along Living Roots (C3)☐ Presence of Reduced Iron (C4)☐ Recent Iron Reduction in Tilled Soils (C6)☐ Thin Muck Surface (C7)☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

☐ Water Marks (B1) (Riverine)☐ Sediment Deposits (B2) (Riverine)☐ Drift Deposits (B3) (Riverine)☐ Drainage Patterns (B10)☐ Dry-Season Water Table (C2)☐ Crayfish Burrows (C8)☐ Saturation Visible on Aerial Imag.(C9)☐ Shallow Aquitard (D3)☒ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present?      Yes       No 

X

      Depth (inches): 

--

Water Table Present?      Yes       No 

X

      Depth (inches): 

--

Saturation Present?      Yes       No 

X

      Depth (inches): 

--

(includes capillary fringe)

**Wetland Hydrology Present?**      Yes       No 

X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Dry area lacks sufficient evidence for wetland hydrology.

US Army Corps of Engineers

HDR

Arid West – Version 2.0

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 5/16/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: \_\_\_\_\_ Sampling Point: 06-N-201205161013  
 Investigators: Donovan Gross Mike Perkins Section, Township, Range S 31 T 5 R 2  
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): Convex Slope(%) 1  
 Subregion (LRR): LRR D Lat: 41.1220163138 Long: -112.106474837 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Ford loam, shallow water table, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <u>X</u> Hydric Soil Present? Yes _____ No <u>X</u> Wetland Hydrology Present? Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>X</u> Wetland ID: _____
---	--

Remarks:  
 "Out" point in heavily grazed pasture does not contain any wetland indicators.

### VEGETATION— Use scientific names of plants.

#### Tree Stratum

#### Shrub Stratum

#### Herb Stratum (Plot size: 30 Ft )

	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
<u>Festuca arundinacea</u>	<u>30</u>	<u>Y</u>	<u>FACU</u>
<u>Distichlis spicata</u>	<u>20</u>	<u>Y</u>	<u>FAC</u>
<u>Trifolium repens</u>	<u>20</u>	<u>Y</u>	<u>FACU</u>
<u>Atriplex micrantha</u>	<u>15</u>	<u>N</u>	<u>UPL</u>
	<u>85</u>	<u>=Total Cover</u>	

#### Vine Stratum

#### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across all Strata: 3 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 33.3% (A/B)

#### Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	<u>0</u>	x 1 =	<u>0</u>
FACW species	<u>0</u>	x 2 =	<u>0</u>
FAC species	<u>20</u>	x 3 =	<u>60</u>
FACU species	<u>50</u>	x 4 =	<u>200</u>
UPL species	<u>15</u>	x 5 =	<u>75</u>
Column Totals:	<u>85</u> (A)		<u>335</u> (B)

Prevalence Index = B/A= 3.94

#### Hydrophytic Vegetation Indicators:

\_\_\_\_\_ Rapid Test for Hydrophytic Vegetation  
 \_\_\_\_\_ Dominance Test > 50%  
 \_\_\_\_\_ Prevalence Index ≤ 3.0  
 \_\_\_\_\_ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 \_\_\_\_\_ Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes \_\_\_\_\_ No X

% Bare Ground in Herb Stratum 10 % Cover of Biotic Crust \_\_\_\_\_

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation is not hydrophytic.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 3	10YR	3.0/ 3					LOAM	
3 to 11	10YR	5.0/ 2					SILTY CLAY LOAM	
11 to 18	10YR	5.0/ 3					CLAY LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- ☐ Histosol (A1)  
☐ Histic Epipedon (A2)  
☐ Black Histic (A3)  
☐ Hydrogen Sulfide (A4)  
☐ Stratified Layers (A5) LRR C  
☐ 1 cm Muck (A9) LRR F D  
☐ Depleted Below Dark Surface (A11)  
☐ Thick Dark Surface (A12)  
☐ Sandy Mucky Mineral (S1)  
☐ Sandy Gleyed Matrix (S4)

- ☐ Sandy Redox (S5)  
☐ Stripped Matrix (S6)  
☐ Loamy Mucky Mineral (F1)  
☐ Loamy Gleyed Matrix (F2)  
☐ Depleted Matrix (F3)  
☐ Redox Dark Surface (F6)  
☐ Depleted Dark Surface (F7)  
☐ Redox Depressions (F8)  
☐ Vernal Pools (F9)

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)  
☐ 2 cm Muck (A10) (LRR B)  
☐ Reduced Vertic (F18)  
☐ Red Parent Material (TF2)  
☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No X

Remarks:  
No hydric indicators observed in soil profile.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)  
☐ High Water Table (A2)  
☐ Saturation (A3)  
☐ Water Marks (B1) (Nonriverine)  
☐ Sediment Deposits (B2) (Nonriverine)  
☐ Drift Deposits (B3) (Nonriverine)  
☐ Surface Soil Cracks (B6)  
☐ Inundation Visible on Aerial Imagery (B7)  
☐ Water-Stained Leaves (B9)  
☐ Salt Crust (B11)  
☐ Biotic Crust (B12)  
☐ Aquatic Fauna (B13)  
☐ Hydrogen Sulfide Odor (C1)  
☐ Oxidized Rhizospheres along Living Roots (C3)  
☐ Presence of Reduced Iron (C4)  
☐ Recent Iron Reduction in Tilled Soils (C6)  
☐ Thin Muck Surface (C7)  
☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)  
☐ Sediment Deposits (B2) (Riverine)  
☐ Drift Deposits (B3) (Riverine)  
☐ Drainage Patterns (B10)  
☐ Dry-Season Water Table (C2)  
☐ Crayfish Burrows (C8)  
☐ Saturation Visible on Aerial Imag.(C9)  
☐ Shallow Aquitard (D3)  
☐ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_  
Water Table Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_  
Saturation Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_  
(includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:  
No hydrology indicators observed.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 5/16/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: \_\_\_\_\_ Sampling Point: 06-W-201205160822  
 Investigators: Donovan Gross Mike Perkins Section, Township, Range S 31 T 5 R 2  
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): Convex Slope(%) 1  
 Subregion (LRR): LRR D Lat: 41.1209066805 Long: -112.105979022 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Ford loam, shallow water table, 0 to 1 percent slopes NWI Classification: PEMC  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ <b>Wetland ID:</b> <u>06-W-30</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks:  
 Sampling point in wetland to potentially establish western boundary of feature.

## VEGETATION— Use scientific names of plants.

**Absolute % Cover** **Dominant Species** **Indicator Status**

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

Juncus arcticus	40	Y	FACW
Carex praegracilis	30	Y	FACW
Distichlis spicata	25	Y	FAC
Carex nebrascensis	5	N	OBL
	100	=Total Cover	

### Vine Stratum

## Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 3 (A)  
 Total Number of Dominant Species Across all Strata: 3 (B)  
 Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

## Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	<u>5</u>	x 1 =	<u>5</u>
FACW species	<u>70</u>	x 2 =	<u>140</u>
FAC species	<u>25</u>	x 3 =	<u>75</u>
FACU species	<u>0</u>	x 4 =	<u>0</u>
UPL species	<u>0</u>	x 5 =	<u>0</u>
Column Totals:	<u>100</u> (A)		<u>220</u> (B)

Prevalence Index = B/A = 2.20

## Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
 Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No \_\_\_\_\_

% Bare Ground in Herb Stratum 0 % Cover of Biotic Crust

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation is hydrophytic; wet meadow plant community.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix			Redox Features				Texture	Remarks
	Color (moist)		%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 2	10YR	3.0/ 2	100						organic
2 to 6	10YR	5.0/ 2	60	10YR 6/6	40	C	M	SILTY CLAY LOAM	
6 to 9	10YR	5.0/ 2	100		40	C	M	SILTY CLAY LOAM	
9 to 16	7.5YR	5.0/ 2	60	10YR 2/1	40	C	M	CLAY LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |  |
|--|--|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)                |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)            |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)        |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)        |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input checked="" type="checkbox"/> Depleted Matrix (F3) |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)         |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7)      |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)          |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)               |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |  |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)  
☐ 2 cm Muck (A10) (LRR B)  
☐ Reduced Vertic (F18)  
☐ Red Parent Material (TF2)  
☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes X No \_\_\_\_\_

## Remarks:

Soil profile meets F3 indicator.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input checked="" type="checkbox"/> Saturation (A3)                | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)  
☐ Sediment Deposits (B2) (Riverine)  
☐ Drift Deposits (B3) (Riverine)  
☐ Drainage Patterns (B10)  
☐ Dry-Season Water Table (C2)  
☐ Crayfish Burrows (C8)  
☐ Saturation Visible on Aerial Imag.(C9)  
☐ Shallow Aquitard (D3)  
☒ FAC-Neutral Test (D5)

**Field Observations:**Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Water Table Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Saturation Present? Yes X No \_\_\_\_\_ Depth (inches): 8

(includes capillary fringe)

**Wetland Hydrology Present?** Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

Sampling point meets criteria for wetland hydrology.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 5/16/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet:  Sampling Point: 06-W-201205160949  
 Investigators: Donovan Gross Mike Perkins Section, Township, Range S 31 T 5 R 2  
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): Concave Slope(%) 1  
 Subregion (LRR): LRR D Lat: 41.1220351966 Long: -112.106329819 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Ford loam, shallow water table, 0 to 1 percent slopes NWI Classification: PEMC

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No  (If No, explain in Remarks)  
 Are Vegetation , Soil , Hydrology , significantly disturbed? Are "Normal Circumstances" present? Yes X No   
 Are Vegetation , Soil , Hydrology , naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No <u></u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No <u></u> <b>Wetland ID:</b> <u>06-W-30</u>
Hydric Soil Present? Yes <u>X</u> No <u></u>	
Wetland Hydrology Present? Yes <u>X</u> No <u></u>	

Remarks:  
 Positive wetland point extends wetland from east.

## VEGETATION— Use scientific names of plants.

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
Distichlis spicata	25	Y	FAC
Eleocharis palustris	20	Y	OBL
Trifolium fragiferum	20	Y	FACU
Juncus arcticus	5	N	FACW
	70	=Total Cover	

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 2 (A)  
 Total Number of Dominant Species Across all Strata: 3 (B)  
 Percent of Dominant Species That are OBL, FACW, or FAC: 66.7% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>20</u>	x 1 = <u>20</u>
FACW species <u>5</u>	x 2 = <u>10</u>
FAC species <u>25</u>	x 3 = <u>75</u>
FACU species <u>20</u>	x 4 = <u>80</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>70</u> (A)	<u>185</u> (B)
Prevalence Index = B/A= <u>2.64</u>	

### Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
 Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No

% Bare Ground in Herb Stratum 20 % Cover of Biotic Crust

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation is hydrophytic.



**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix			Redox Features				Texture	Remarks
	Color (moist)		%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 7	10YR	2.0 / 1	90	10YR 6/4	10	C	M	SILTY CLAY LOAM	
7 to 18	10YR	3.0 / 2	100					SILTY CLAY LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)                   |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)               |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)           |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)           |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input type="checkbox"/> Depleted Matrix (F3)               |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input checked="" type="checkbox"/> Redox Dark Surface (F6) |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7)         |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)             |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)                  |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |   |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)  
☐ 2 cm Muck (A10) (LRR B)  
☐ Reduced Vertic (F18)  
☐ Red Parent Material (TF2)  
☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes   X   No       

Remarks:  
Soil profile meets F6 indicator.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input checked="" type="checkbox"/> Saturation (A3)                | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)  
☐ Sediment Deposits (B2) (Riverine)  
☐ Drift Deposits (B3) (Riverine)  
☐ Drainage Patterns (B10)  
☐ Dry-Season Water Table (C2)  
☐ Crayfish Burrows (C8)  
☐ Saturation Visible on Aerial Imag.(C9)  
☐ Shallow Aquitard (D3)  
☒ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present?	Yes <u>      </u>	No <u>  X  </u>	Depth (inches):	<u>      --      </u>
Water Table Present?	Yes <u>      </u>	No <u>  X  </u>	Depth (inches):	<u>      18      </u>
Saturation Present?	Yes <u>  X  </u>	No <u>      </u>	Depth (inches):	<u>      2      </u>

(includes capillary fringe)

**Wetland Hydrology Present?** Yes   X   No       

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Sampling point meets criteria for wetland hydrology because of saturation.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 5/11/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: \_\_\_\_\_ Sampling Point: 07-N-201205111306  
 Investigators: Ron Kass Paul Dawson Section, Township, Range S 5 T 4 R 2  
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): None Slope(%) 0  
 Subregion (LRR): LRR D Lat: 41.1117323171 Long: -112.10269302 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Warm Springs fine sandy loam, saline, sodic, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> <b>Wetland ID:</b> _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	

Remarks:  
 Upland with some facultative vegetation species but no hydric soils or wetland hydrology.

## VEGETATION— Use scientific names of plants.

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
Hordeum jubatum	80	Y	FAC
Distichlis spicata	5	N	FAC
Lactuca serriola	5	N	FACU
	90	=Total Cover	

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 1 (A)  
 Total Number of Dominant Species Across all Strata: 1 (B)  
 Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>0</u>	x 2 = <u>0</u>
FAC species <u>85</u>	x 3 = <u>255</u>
FACU species <u>5</u>	x 4 = <u>20</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>90</u> (A)	<u>275</u> (B)
Prevalence Index = B/A= <u>3.06</u>	

### Hydrophytic Vegetation Indicators:

\_\_\_\_ Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
 \_\_\_\_ Prevalence Index ≤ 3.0  
 \_\_\_\_ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 \_\_\_\_ Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No \_\_\_\_\_

% Bare Ground in Herb Stratum 10 % Cover of Biotic Crust

Remarks: (Include photo numbers here or on a separate sheet.)

Fox-tail barley dominated plant community.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 14	10YR	4.0/ 2	100				SILT LOAM	
14 to 18	10YR	4.0/ 3	100				SILTY CLAY LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- ☐ Histosol (A1)  
☐ Histic Epipedon (A2)  
☐ Black Histic (A3)  
☐ Hydrogen Sulfide (A4)  
☐ Stratified Layers (A5) LRR C  
☐ 1 cm Muck (A9) LRR F D  
☐ Depleted Below Dark Surface (A11)  
☐ Thick Dark Surface (A12)  
☐ Sandy Mucky Mineral (S1)  
☐ Sandy Gleyed Matrix (S4)

- ☐ Sandy Redox (S5)  
☐ Stripped Matrix (S6)  
☐ Loamy Mucky Mineral (F1)  
☐ Loamy Gleyed Matrix (F2)  
☐ Depleted Matrix (F3)  
☐ Redox Dark Surface (F6)  
☐ Depleted Dark Surface (F7)  
☐ Redox Depressions (F8)  
☐ Vernal Pools (F9)

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)  
☐ 2 cm Muck (A10) (LRR B)  
☐ Reduced Vertic (F18)  
☐ Red Parent Material (TF2)  
☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No X

Remarks:  
No hydric soil indicators observed.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)  
☐ High Water Table (A2)  
☐ Saturation (A3)  
☐ Water Marks (B1) (Nonriverine)  
☐ Sediment Deposits (B2) (Nonriverine)  
☐ Drift Deposits (B3) (Nonriverine)  
☐ Surface Soil Cracks (B6)  
☐ Inundation Visible on Aerial Imagery (B7)  
☐ Water-Stained Leaves (B9)  
☐ Salt Crust (B11)  
☐ Biotic Crust (B12)  
☐ Aquatic Fauna (B13)  
☐ Hydrogen Sulfide Odor (C1)  
☐ Oxidized Rhizospheres along Living Roots (C3)  
☐ Presence of Reduced Iron (C4)  
☐ Recent Iron Reduction in Tilled Soils (C6)  
☐ Thin Muck Surface (C7)  
☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)  
☐ Sediment Deposits (B2) (Riverine)  
☐ Drift Deposits (B3) (Riverine)  
☐ Drainage Patterns (B10)  
☐ Dry-Season Water Table (C2)  
☐ Crayfish Burrows (C8)  
☐ Saturation Visible on Aerial Imag.(C9)  
☐ Shallow Aquitard (D3)  
☐ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_  
Water Table Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_  
Saturation Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_  
(includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:  
No wetland hydrology.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 5/14/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: \_\_\_\_\_ Sampling Point: 07-N-201205141045  
 Investigators: Ron Kass Paul Dawson Section, Township, Range S 6 T 4 R 2  
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): None Slope(%) 1  
 Subregion (LRR): LRR D Lat: 41.1155222586 Long: -112.105880243 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Warm Springs fine sandy loam, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> <b>Wetland ID:</b> _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	

Remarks:  
 Upland data point with facultative hydrophytic vegetation but no hydric soils or wetland hydrology.

## VEGETATION— Use scientific names of plants.

<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
60	Y	FAC
35	Y	FAC
95	=Total Cover	

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

Hordeum jubatum

Distichlis spicata

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across all Strata: 2 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>0</u>	x 2 = <u>0</u>
FAC species <u>95</u>	x 3 = <u>285</u>
FACU species <u>0</u>	x 4 = <u>0</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>95</u> (A)	<u>285</u> (B)

Prevalence Index = B/A= 3.00

### Hydrophytic Vegetation Indicators:

       Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
       Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
       Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No \_\_\_\_\_

% Bare Ground in Herb Stratum 5 % Cover of Biotic Crust \_\_\_\_\_

Remarks: (Include photo numbers here or on a separate sheet.)

Barley and salt grass community.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 18	10YR	4.0 / 2		100			SILTY CLAY LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)           |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)       |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)   |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)   |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input type="checkbox"/> Depleted Matrix (F3)       |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)     |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)          |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |   |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- |   |
|---|
| <input type="checkbox"/> 1 cm Muck (A9) (LRR C)     |
| <input type="checkbox"/> 2 cm Muck (A10) (LRR B)    |
| <input type="checkbox"/> Reduced Vertic (F18)       |
| <input type="checkbox"/> Red Parent Material (TF2)  |
| <input type="checkbox"/> Other (Explain in Remarks) |

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No X

## Remarks:

No hydric soil indicators were observed.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- |   |
|---|
| <input type="checkbox"/> Water Marks (B1) (Riverine)            |
| <input type="checkbox"/> Sediment Deposits (B2) (Riverine)      |
| <input type="checkbox"/> Drift Deposits (B3) (Riverine)         |
| <input type="checkbox"/> Drainage Patterns (B10)                |
| <input type="checkbox"/> Dry-Season Water Table (C2)            |
| <input type="checkbox"/> Crayfish Burrows (C8)                  |
| <input type="checkbox"/> Saturation Visible on Aerial Imag.(C9) |
| <input type="checkbox"/> Shallow Aquitard (D3)                  |
| <input type="checkbox"/> FAC-Neutral Test (D5)                  |

**Field Observations:**Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Water Table Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Saturation Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_

(includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

No wetland hydrology.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 5/14/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: \_\_\_\_\_ Sampling Point: 07-N-201205141100  
 Investigators: Ron Kass Paul Dawson Section, Township, Range S 6 T 4 R 2  
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): None Slope(%) 2  
 Subregion (LRR): LRR D Lat: 41.12 Long: -112.1 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Ford loam, shallow water table, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes \_\_\_\_\_ No X  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology X, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> <b>Wetland ID:</b> _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks:  
 Sample point in area where vegetation is hydrophytic and evidence of hydrology exists but no signs of hydric soils, therefore does not appear to meet the criteria as a wetland.

## VEGETATION— Use scientific names of plants.

**Absolute % Cover** **Dominant Species** **Indicator Status**

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

Juncus arcticus	60	Y	FACW
Carex praegracilis	30	Y	FACW
Thinopyrum intermedium	5	N	UPL
Xanthium strumarium	5	N	FAC
	100	=Total Cover	

### Vine Stratum

## Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across all Strata: 2 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

## Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>90</u>	x 2 = <u>180</u>
FAC species <u>5</u>	x 3 = <u>15</u>
FACU species <u>0</u>	x 4 = <u>0</u>
UPL species <u>5</u>	x 5 = <u>25</u>
Column Totals: <u>100</u> (A)	<u>220</u> (B)

Prevalence Index = B/A = 2.20

## Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
 \_\_\_\_\_ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 \_\_\_\_\_ Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No \_\_\_\_\_

% Bare Ground in Herb Stratum \_\_\_\_\_ % Cover of Biotic Crust \_\_\_\_\_

Remarks: (Include photo numbers here or on a separate sheet.)

Wet meadow community.



**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 18	10YR	4.0 / 2		100			SILTY CLAY LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)           |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)       |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)   |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)   |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input type="checkbox"/> Depleted Matrix (F3)       |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)     |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)          |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |   |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- |   |
|---|
| <input type="checkbox"/> 1 cm Muck (A9) (LRR C)     |
| <input type="checkbox"/> 2 cm Muck (A10) (LRR B)    |
| <input type="checkbox"/> Reduced Vertic (F18)       |
| <input type="checkbox"/> Red Parent Material (TF2)  |
| <input type="checkbox"/> Other (Explain in Remarks) |

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No X

## Remarks:

No hydric soil was observed.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input checked="" type="checkbox"/> Surface Soil Cracks (B6)       | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- |   |
|---|
| <input type="checkbox"/> Water Marks (B1) (Riverine)            |
| <input type="checkbox"/> Sediment Deposits (B2) (Riverine)      |
| <input type="checkbox"/> Drift Deposits (B3) (Riverine)         |
| <input type="checkbox"/> Drainage Patterns (B10)                |
| <input type="checkbox"/> Dry-Season Water Table (C2)            |
| <input type="checkbox"/> Crayfish Burrows (C8)                  |
| <input type="checkbox"/> Saturation Visible on Aerial Imag.(C9) |
| <input type="checkbox"/> Shallow Aquitard (D3)                  |
| <input checked="" type="checkbox"/> FAC-Neutral Test (D5)       |

**Field Observations:**Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Water Table Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Saturation Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_

(includes capillary fringe)

**Wetland Hydrology Present?** Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

Prominent surface soil indicate wetland hydrology.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 5/14/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: \_\_\_\_\_ Sampling Point: 07-N-201205141115  
 Investigators: Ron Kass Paul Dawson Section, Township, Range S 6 T 4 R 2  
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): Convex Slope(%) 3  
 Subregion (LRR): LRR D Lat: 41.1164582974 Long: -112.103126556 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Kidman fine sandy loam, 10 to 20 percent slopes, eroded NWI Classification: \_\_\_\_\_  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> Wetland ID: _____
Hydric Soil Present?	Yes _____ No <u>X</u>	
Wetland Hydrology Present?	Yes _____ No <u>X</u>	

Remarks:  
 Upland grass pasture.

## VEGETATION— Use scientific names of plants.

<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
80	Y	FACU
20	Y	UPL
100	=Total Cover	

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

Festuca pratensis

Thinopyrum ponticum

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 2 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 0.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>0</u>	x 2 = <u>0</u>
FAC species <u>0</u>	x 3 = <u>0</u>
FACU species <u>80</u>	x 4 = <u>320</u>
UPL species <u>20</u>	x 5 = <u>100</u>
Column Totals: <u>100</u> (A)	<u>420</u> (B)

Prevalence Index = B/A = 4.20

### Hydrophytic Vegetation Indicators:

☐ Rapid Test for Hydrophytic Vegetation  
☐ Dominance Test > 50%  
☐ Prevalence Index ≤ 3.0  
☐ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
☐ Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes \_\_\_\_\_ No X

% Bare Ground in Herb Stratum \_\_\_\_\_ % Cover of Biotic Crust \_\_\_\_\_

Remarks: (Include photo numbers here or on a separate sheet.)  
 Upland grass pasture.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 18	10YR	4.0 / 2		100			SILTY CLAY LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)           |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)       |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)   |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)   |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input type="checkbox"/> Depleted Matrix (F3)       |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)     |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)          |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |   |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- |   |
|---|
| <input type="checkbox"/> 1 cm Muck (A9) (LRR C)     |
| <input type="checkbox"/> 2 cm Muck (A10) (LRR B)    |
| <input type="checkbox"/> Reduced Vertic (F18)       |
| <input type="checkbox"/> Red Parent Material (TF2)  |
| <input type="checkbox"/> Other (Explain in Remarks) |

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No XRemarks:  
No hydric soil indicators observed.**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- |   |
|---|
| <input type="checkbox"/> Water Marks (B1) (Riverine)            |
| <input type="checkbox"/> Sediment Deposits (B2) (Riverine)      |
| <input type="checkbox"/> Drift Deposits (B3) (Riverine)         |
| <input type="checkbox"/> Drainage Patterns (B10)                |
| <input type="checkbox"/> Dry-Season Water Table (C2)            |
| <input type="checkbox"/> Crayfish Burrows (C8)                  |
| <input type="checkbox"/> Saturation Visible on Aerial Imag.(C9) |
| <input type="checkbox"/> Shallow Aquitard (D3)                  |
| <input type="checkbox"/> FAC-Neutral Test (D5)                  |

**Field Observations:**Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Water Table Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Saturation Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_

(includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:  
No wetland hydrology.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 5/14/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: \_\_\_\_\_ Sampling Point: 07-N-201205141122  
 Investigators: Ron Kass Paul Dawson Section, Township, Range S 6 T 4 R 2  
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): None Slope(%) 1  
 Subregion (LRR): LRR D Lat: 41.12 Long: -112.1 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Ford loam, shallow water table, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes \_\_\_\_\_ No X  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology X, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> Wetland ID: _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks:  
 Data point where hydrophytic vegetation and evidence of past wetland hydrology but soils failed to show any hydric indicators and therefore is not a wetland. It may be heavily influenced by irrigation.

## VEGETATION— Use scientific names of plants.

**Absolute % Cover** **Dominant Species** **Indicator Status**

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

Carex praegracilis	85	Y	FACW
Thinopyrum ponticum	10	N	UPL
Hordeum jubatum	9	N	FAC
Ranunculus sceleratus	1	N	OBL
	105	=Total Cover	

### Vine Stratum

## Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 1 (A)  
 Total Number of Dominant Species Across all Strata: 1 (B)  
 Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

## Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	<u>1</u>	x 1 =	<u>1</u>
FACW species	<u>85</u>	x 2 =	<u>170</u>
FAC species	<u>9</u>	x 3 =	<u>27</u>
FACU species	<u>0</u>	x 4 =	<u>0</u>
UPL species	<u>10</u>	x 5 =	<u>50</u>
Column Totals:	<u>105</u> (A)		<u>248</u> (B)
Prevalence Index = B/A=		<u>2.36</u>	

## Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
 Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No \_\_\_\_\_

% Bare Ground in Herb Stratum \_\_\_\_\_ % Cover of Biotic Crust \_\_\_\_\_

Remarks: (Include photo numbers here or on a separate sheet.)  
 Vegetation is hydrophytic though tall wheatgrass is also present.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 18	10YR	4.0 / 2					SILTY CLAY LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)           |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)       |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)   |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)   |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input type="checkbox"/> Depleted Matrix (F3)       |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)     |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)          |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |   |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)
- ☐ 2 cm Muck (A10) (LRR B)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No X

## Remarks:

No hydric soil indicators observed.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input checked="" type="checkbox"/> Surface Soil Cracks (B6)       | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)
- ☐ Sediment Deposits (B2) (Riverine)
- ☐ Drift Deposits (B3) (Riverine)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Shallow Aquitard (D3)
- ☒ FAC-Neutral Test (D5)

**Field Observations:**Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Water Table Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Saturation Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_

(includes capillary fringe)

**Wetland Hydrology Present?** Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

Sampling point meets criteria for wetland hydrology. Appears to be influenced by irrigation.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 7/13/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: \_\_\_\_\_ Sampling Point: 07-N-201207131445  
 Investigators: Donovan Gross Nate Nichols Section, Township, Range S 5 T 4 R 2  
 Landform (hillslope, terrace, etc.): Basin Local Relief (concave, convex, none): Concave Slope(%) 5  
 Subregion (LRR): LRR C Lat: 41.1119464674 Long: -112.102384707 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Warm Springs fine sandy loam, saline, sodic, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology X, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> Wetland ID: _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	

Remarks:  
 Sampling point not a wetland. Soils do not meet hydric criteria.

## VEGETATION— Use scientific names of plants.

<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
95	Y	FAC
5	N	FACW
100	=Total Cover	

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

Hordeum jubatum

Juncus arcticus

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across all Strata: 1 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>5</u>	x 2 = <u>10</u>
FAC species <u>95</u>	x 3 = <u>285</u>
FACU species <u>0</u>	x 4 = <u>0</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>100</u> (A)	<u>295</u> (B)

Prevalence Index = B/A = 2.95

### Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
 Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No \_\_\_\_\_

% Bare Ground in Herb Stratum \_\_\_\_\_ % Cover of Biotic Crust \_\_\_\_\_

Remarks: (Include photo numbers here or on a separate sheet.)



**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 6	10YR	3.0/ 3					LOAM	
6 to 8	10YR	5.0/ 1					CLAY LOAM	
8 to 16	7.5YR	3.0/ 3					CLAY LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)           |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)       |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)   |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)   |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input type="checkbox"/> Depleted Matrix (F3)       |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)     |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)          |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |   |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)  
☐ 2 cm Muck (A10) (LRR B)  
☐ Reduced Vertic (F18)  
☐ Red Parent Material (TF2)  
☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No X

## Remarks:

Soil profile does not meet criteria for hydric indicators.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)  
☐ Sediment Deposits (B2) (Riverine)  
☐ Drift Deposits (B3) (Riverine)  
☐ Drainage Patterns (B10)  
☐ Dry-Season Water Table (C2)  
☐ Crayfish Burrows (C8)  
☐ Saturation Visible on Aerial Imag.(C9)  
☐ Shallow Aquitard (D3)  
☒ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_  
Water Table Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_  
Saturation Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_  
(includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

No primary hydrology indicators observed, only one secondary indicator.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 5/7/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: \_\_\_\_\_ Sampling Point: 07-N-201209141735  
 Investigators: Mike Perkins Section, Township, Range S 6 T 4 R 2  
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): None Slope(%) 0  
 Subregion (LRR): LRR D Lat: 41.1152670743 Long: -112.103724452 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Ford loam, shallow water table, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology X, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> <b>Wetland ID:</b> _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	

Remarks:  
 Sampling point in pastureland not a wetland. Vegetation appears "drier" to the west.

## VEGETATION— Use scientific names of plants.

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
Juncus arcticus	45	Y	FACW
Hordeum jubatum	30	Y	FAC
Poa palustris	10	N	FAC
Thinopyrum ponticum	10	N	UPL
Atriplex micrantha	5	N	UPL
Conyza bonariensis	5	N	FACU
	105	=Total Cover	

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across all Strata: 2 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>45</u>	x 2 = <u>90</u>
FAC species <u>40</u>	x 3 = <u>120</u>
FACU species <u>5</u>	x 4 = <u>20</u>
UPL species <u>15</u>	x 5 = <u>75</u>
Column Totals: <u>105</u> (A)	<u>305</u> (B)

Prevalence Index = B/A = 2.90

### Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
 Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No \_\_\_\_\_

% Bare Ground in Herb Stratum 15 % Cover of Biotic Crust

Remarks: (Include photo numbers here or on a separate sheet.)  
 Although less vigorous than vegetation in nearby wetland sampling point to the east, vegetation qualifies as hydrophytic.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 2	10YR	3 / 2	100					organic
2 to 12	10YR	4 / 2	100				CLAY LOAM	
12 to 15	10YR	5 / 2	100				CLAY LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)           |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)       |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)   |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)   |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input type="checkbox"/> Depleted Matrix (F3)       |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)     |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)          |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |   |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)  
☐ 2 cm Muck (A10) (LRR B)  
☐ Reduced Vertic (F18)  
☐ Red Parent Material (TF2)  
☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No X

## Remarks:

Soil profile does not meet criteria for hydric indicators.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)  
☐ Sediment Deposits (B2) (Riverine)  
☐ Drift Deposits (B3) (Riverine)  
☐ Drainage Patterns (B10)  
☐ Dry-Season Water Table (C2)  
☐ Crayfish Burrows (C8)  
☐ Saturation Visible on Aerial Imag.(C9)  
☐ Shallow Aquitard (D3)  
☐ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_  
Water Table Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_  
Saturation Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_  
(includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

Completely dry area lacks evidence for wetland hydrology, but observed during dry time of year.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 5/11/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: \_\_\_\_\_ Sampling Point: 07-W-201205111317  
 Investigators: Ron Kass Paul Dawson Section, Township, Range S 5 T 4 R 2  
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): None Slope(%) 1  
 Subregion (LRR): LRR D Lat: 41.1124277334 Long: -112.101611525 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Ford loam, shallow water table, 0 to 1 percent slopes NWI Classification: PEMC  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ <b>Wetland ID:</b> <u>07-W-37</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes _____ No <u>X</u>	

Remarks:  
 Site is dominated by hydrophytic vegetaton and soil appears to be hydric, but no wetland hydrology was observed.

## VEGETATION— Use scientific names of plants.

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
Juncus arcticus	85	Y	FACW
Eleocharis palustris	5	N	OBL
	90	=Total Cover	

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across all Strata: 1 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	<u>5</u>	x 1 =	<u>5</u>
FACW species	<u>85</u>	x 2 =	<u>170</u>
FAC species	<u>0</u>	x 3 =	<u>0</u>
FACU species	<u>0</u>	x 4 =	<u>0</u>
UPL species	<u>0</u>	x 5 =	<u>0</u>
Column Totals:	<u>90</u> (A)		<u>175</u> (B)

Prevalence Index = B/A= 1.94

### Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
 Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No \_\_\_\_\_

% Bare Ground in Herb Stratum \_\_\_\_\_ % Cover of Biotic Crust \_\_\_\_\_

Remarks: (Include photo numbers here or on a separate sheet.)

Rush-dominated vegetation community.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 6	10YR	4.0 / 2	100				SILTY CLAY LOAM	
6 to 18	10YR	5.0 / 1	100				CLAY	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |  |
|--|--|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)                |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)            |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)        |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)        |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input checked="" type="checkbox"/> Depleted Matrix (F3) |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)         |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7)      |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)          |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)               |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |  |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- |   |
|---|
| <input type="checkbox"/> 1 cm Muck (A9) (LRR C)     |
| <input type="checkbox"/> 2 cm Muck (A10) (LRR B)    |
| <input type="checkbox"/> Reduced Vertic (F18)       |
| <input type="checkbox"/> Red Parent Material (TF2)  |
| <input type="checkbox"/> Other (Explain in Remarks) |

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes   X   No       Remarks:  
Meets hydric soil indicator F3.**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- |   |
|---|
| <input type="checkbox"/> Water Marks (B1) (Riverine)            |
| <input type="checkbox"/> Sediment Deposits (B2) (Riverine)      |
| <input type="checkbox"/> Drift Deposits (B3) (Riverine)         |
| <input type="checkbox"/> Drainage Patterns (B10)                |
| <input type="checkbox"/> Dry-Season Water Table (C2)            |
| <input type="checkbox"/> Crayfish Burrows (C8)                  |
| <input type="checkbox"/> Saturation Visible on Aerial Imag.(C9) |
| <input type="checkbox"/> Shallow Aquitard (D3)                  |
| <input checked="" type="checkbox"/> FAC-Neutral Test (D5)       |

**Field Observations:**

Surface Water Present?	Yes <u>      </u>	No <u>  X  </u>	Depth (inches):	_____
Water Table Present?	Yes <u>      </u>	No <u>  X  </u>	Depth (inches):	_____
Saturation Present?	Yes <u>      </u>	No <u>  X  </u>	Depth (inches):	_____

(includes capillary fringe)

**Wetland Hydrology Present?** Yes        No   X  

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No wetland hydrology was observed; site may be influenced by irrigation.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 7/13/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: \_\_\_\_\_ Sampling Point: 07-W-201207131500  
 Investigators: Donovan Gross Nate Nichols Section, Township, Range S 5 T 4 R 2  
 Landform (hillslope, terrace, etc.): Basin Local Relief (concave, convex, none): Concave Slope(%) 5  
 Subregion (LRR): LRR C Lat: 41.1121121796 Long: -112.102114207 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Warm Springs fine sandy loam, saline, sodic, 0 to 1 percent slopes NWI Classification: PEMC  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology X, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____  <b>Wetland ID:</b> <u>07-W-37</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes _____ No <u>X</u>	

Remarks:  
 Sample point determined to be a wetland with hydrophytic vegetation and hydric soils. Hydrology assumed during wetter portion of growing season.

## VEGETATION— Use scientific names of plants.

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
<u>Hordeum jubatum</u>	<u>90</u>	<u>Y</u>	<u>FAC</u>
<u>Juncus arcticus</u>	<u>10</u>	<u>N</u>	<u>FACW</u>
<u>Puccinellia nuttalliana</u>	<u>5</u>	<u>N</u>	<u>FACW</u>
	<u>105</u>	<u>=Total Cover</u>	

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across all Strata: 1 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	<u>0</u>	x 1 =	<u>0</u>
FACW species	<u>15</u>	x 2 =	<u>30</u>
FAC species	<u>90</u>	x 3 =	<u>270</u>
FACU species	<u>0</u>	x 4 =	<u>0</u>
UPL species	<u>0</u>	x 5 =	<u>0</u>
Column Totals:	<u>105</u> (A)		<u>300</u> (B)

Prevalence Index = B/A = 2.86

### Hydrophytic Vegetation Indicators:

   Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
   Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
   Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No \_\_\_\_\_

% Bare Ground in Herb Stratum 0 % Cover of Biotic Crust \_\_\_\_\_

Remarks: (Include photo numbers here or on a separate sheet.)



**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix			Redox Features				Texture	Remarks
	Color (moist)		%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 3	10YR	4.0 / 3	100					CLAY LOAM	
3 to 9	10YR	3.0 / 1	85	10YR 3/1	10	C	M	CLAY LOAM	
3 to 9	/			GLEYS 1 2.5/N	5	C	M		
9 to 18	7.5YR	4.0 / 1	90	7.5YR 6/2	10	D	M	CLAY	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- ☐ Histosol (A1)  
☐ Histic Epipedon (A2)  
☐ Black Histic (A3)  
☐ Hydrogen Sulfide (A4)  
☐ Stratified Layers (A5) LRR C  
☐ 1 cm Muck (A9) LRR F D  
☐ Depleted Below Dark Surface (A11)  
☐ Thick Dark Surface (A12)  
☐ Sandy Mucky Mineral (S1)  
☐ Sandy Gleyed Matrix (S4)  
☐ Sandy Redox (S5)  
☐ Stripped Matrix (S6)  
☐ Loamy Mucky Mineral (F1)  
☐ Loamy Gleyed Matrix (F2)  
☒ Depleted Matrix (F3)  
☐ Redox Dark Surface (F6)  
☐ Depleted Dark Surface (F7)  
☐ Redox Depressions (F8)  
☐ Vernal Pools (F9)

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)  
☐ 2 cm Muck (A10) (LRR B)  
☐ Reduced Vertic (F18)  
☐ Red Parent Material (TF2)  
☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes X No \_\_\_\_\_**Remarks:**

Soil profile meets F3 indicator.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)  
☐ High Water Table (A2)  
☐ Saturation (A3)  
☐ Water Marks (B1) (Nonriverine)  
☐ Sediment Deposits (B2) (Nonriverine)  
☐ Drift Deposits (B3) (Nonriverine)  
☐ Surface Soil Cracks (B6)  
☐ Inundation Visible on Aerial Imagery (B7)  
☐ Water-Stained Leaves (B9)  
☐ Salt Crust (B11)  
☐ Biotic Crust (B12)  
☐ Aquatic Fauna (B13)  
☐ Hydrogen Sulfide Odor (C1)  
☐ Oxidized Rhizospheres along Living Roots (C3)  
☐ Presence of Reduced Iron (C4)  
☐ Recent Iron Reduction in Tilled Soils (C6)  
☐ Thin Muck Surface (C7)  
☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)  
☐ Sediment Deposits (B2) (Riverine)  
☐ Drift Deposits (B3) (Riverine)  
☐ Drainage Patterns (B10)  
☐ Dry-Season Water Table (C2)  
☐ Crayfish Burrows (C8)  
☐ Saturation Visible on Aerial Imag.(C9)  
☐ Shallow Aquitard (D3)  
☒ FAC-Neutral Test (D5)

**Field Observations:**Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Water Table Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Saturation Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_

(includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

**Remarks:**

Area currently dry. Dry time of year for a seasonal wetland.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 5/7/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: \_\_\_\_\_ Sampling Point: 07-W-201209141629  
 Investigators: Mike Perkins Section, Township, Range S 6 T 4 R 2  
 Landform (hillslope, terrace, etc.): Toe of Slope Local Relief (concave, convex, none): Concave Slope(%) 1  
 Subregion (LRR): LRR D Lat: 41.1157551936 Long: -112.1035866 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Ford loam, shallow water table, 0 to 1 percent slopes NWI Classification: PEMC  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology X, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ <b>Wetland ID:</b> <u>07-W-37</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes _____ No <u>X</u>	

Remarks:  
 Sampling point in mesic pastureland determined to be a wetland with hydrophytic vegetation and hydric soils. Hydrology assumed during wetter portion of growing season. Point is near western boundary of wetland; hydrophytic vegetation within the wetland becomes more vigorous to the east and south.

## VEGETATION— Use scientific names of plants.

**Absolute % Cover** **Dominant Species** **Indicator Status**

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

Juncus arcticus	40	Y	FACW
Poa palustris	25	Y	FAC
Trifolium fragiferum	25	Y	FACU
Elymus repens	10	N	FAC
Xanthium strumarium	10	N	FAC
Carex praegracilis	5	N	FACW
Hordeum jubatum	5	N	FAC
Thinopyrum ponticum	2	N	UPL
	122	=Total Cover	

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across all Strata: 3 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 66.7% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>45</u>	x 2 = <u>90</u>
FAC species <u>50</u>	x 3 = <u>150</u>
FACU species <u>25</u>	x 4 = <u>100</u>
UPL species <u>2</u>	x 5 = <u>10</u>
Column Totals: <u>122</u> (A)	<u>350</u> (B)

Prevalence Index = B/A = 2.87

### Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
 Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No \_\_\_\_\_

% Bare Ground in Herb Stratum 10 % Cover of Biotic Crust

Remarks: (Include photo numbers here or on a separate sheet.)  
 Vegetation is hydrophytic; becomes more vigorous to the east and south.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 2	10YR	3 / 2	100					organic peat
2 to 6	10YR	4 / 2	97	GLE 1 2.5/N	3	D	M	CLAY LOAM
7 to 20	7.5YR	5 / 2	85	7.5YR 7/2	15	D	M	CLAY LOAM

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |  |
|--|--|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)                |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)            |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)        |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)        |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input checked="" type="checkbox"/> Depleted Matrix (F3) |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)         |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7)      |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)          |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)               |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |  |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)
- ☐ 2 cm Muck (A10) (LRR B)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes X No \_\_\_\_\_

## Remarks:

Soil profile meets F3 indicator.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)
- ☐ Sediment Deposits (B2) (Riverine)
- ☐ Drift Deposits (B3) (Riverine)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_

Water Table Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_

Saturation Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_

(includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

No indicators observed, but problematic time of year for seasonal wetlands. Area may be influenced by irrigation; field ditch nearby (15 feet from point within wetland) has about 2 inches of surface water.

# WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: WDC DG-07-W-37-2-IN City/County: Davis County Sampling Date: 7/18/2016  
 Applicant/Owner: UDOT State: Utah Sampling Point: DG-07-W-37-2  
 Investigator(s): MP/DG/AC/JW Section, Township, Range: 5 4N 2W  
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): none Slope (%): 1%  
 Subregion (LRR): D Lat: 41.11299906 Long: -112.1015024 Datum: D WGS 1983  
 Soil Map Unit Name: Ford loam, shallow water table, 0 to 1 percent slopes NWI classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____	
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	
Remarks:  Sampled area is a wetland.	

## VEGETATION – Use scientific names of plants.

<b>Tree Stratum</b> (Plot size: _____) 1. _____ 2. _____ 3. _____ 4. _____ _____ = Total Cover <b>Sapling/Shrub Stratum</b> (Plot size: _____) 1. _____ 2. _____ 3. _____ 4. _____ 5. _____ _____ = Total Cover <b>Herb Stratum</b> (Plot size: <u>5 ft radius</u> ) 1. <u>Juncus arcticus</u> 50% Yes FACW 2. <u>Distichlis spicata</u> 40% Yes FAC 3. <u>Carex praegracilis</u> 25% Yes FACW 4. <u>Hordeum jubatum</u> 5% FAC 5. <u>Atriplex micrantha</u> 7% UPL 6. <u>Thinopyrum intermedium</u> 5% UPL 7. _____ 8. _____ 177% = Total Cover <b>Woody Vine Stratum</b> (Plot size: _____) 1. _____ 2. _____ _____ = Total Cover % Bare Ground in Herb Stratum <u>0</u> % Cover of Biotic Crust <u>0</u>	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B) <b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____ <b>Hydrophytic Vegetation Indicators:</b> <input checked="" type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. <b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No _____
Remarks:  Vegetation passes dominance test.	

# SOIL

Sampling Point: DG-07-W-1

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-1	10YR 3/3	100%						
1-6	10YR 3/2	100%					SiClay	
6-12	10YR 4/2	98%	5YR 3/4	2%	C	PL		Redox along roots
12+	10YR 5/2	95%	5YR 3/4	5%	C	M	SiClay	Redox

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) (**LRR C**)
- ☐ 1 cm Muck (A9) (**LRR D**)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)

- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☒ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- ☐ 1 cm Muck (A9) (**LRR C**)
- ☐ 2 cm Muck (A10) (**LRR B**)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes ☒ No ☐

Remarks:

Dry at 15" depth.

# HYDROLOGY

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1) (**Nonriverine**)
- ☐ Sediment Deposits (B2) (**Nonriverine**)
- ☐ Drift Deposits (B3) (**Nonriverine**)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)

- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☒ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☒ Oxidized Rhizospheres along Living Roots (C3)
- ☒ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) (**Riverine**)
- ☐ Sediment Deposits (B2) (**Riverine**)
- ☐ Drift Deposits (B3) (**Riverine**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☒ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present? Yes ☐ No ☒ Depth (inches): \_\_\_\_\_

Water Table Present? Yes ☐ No ☒ Depth (inches): \_\_\_\_\_

Saturation Present? Yes ☐ No ☒ Depth (inches): \_\_\_\_\_  
(includes capillary fringe)

**Wetland Hydrology Present?** Yes ☒ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Hydrology indicators (B13), (C1), and (C4).

# WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: WDC DG-07-W-37-2-OUT City/County: \_\_\_\_\_ Sampling Date: 7/18/2016  
 Applicant/Owner: UDOT State: Utah Sampling Point: DG-07-W-37-2  
 Investigator(s): DG/JW/AC Section, Township, Range: 5 4N 2W  
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): none Slope (%): 1  
 Subregion (LRR): D Lat: 41.11206393 Long: -112.1008703 Datum: D WGS 1983  
 Soil Map Unit Name: Ford loam, shallow water table, 0 to 1 percent slopes NWI classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology ☒ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Hydric Soil Present? Yes _____ No _____	
Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	
Remarks:  Upland vegetation. Didn't sample soils.	

## VEGETATION – Use scientific names of plants.

<b>Tree Stratum</b> (Plot size: _____) 1. _____ 2. _____ 3. _____ 4. _____ _____ = Total Cover <b>Sapling/Shrub Stratum</b> (Plot size: _____) 1. _____ 2. _____ 3. _____ 4. _____ 5. _____ _____ = Total Cover <b>Herb Stratum</b> (Plot size: <u>5 ft radius</u> ) 1. <u>Thinopyrum intermedium</u> <u>80%</u> <u>Yes</u> <u>NL</u> 2. <u>Juncus arcticus</u> <u>20%</u> <u>Yes</u> <u>FACW</u> 3. _____ 4. _____ 5. _____ 6. _____ 7. _____ 8. _____ _____ = Total Cover <b>Woody Vine Stratum</b> (Plot size: _____) 1. _____ 2. _____ _____ = Total Cover % Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50%</u> (A/B) <b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species <u>20</u> x 2 = <u>40</u> FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species <u>80</u> x 5 = <u>400</u> Column Totals: <u>100</u> (A) <u>440</u> (B) Prevalence Index = B/A = <u>4.4</u> <b>Hydrophytic Vegetation Indicators:</b> ___ Dominance Test is >50% ___ Prevalence Index is ≤3.0 <sup>1</sup> ___ Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. <b>Hydrophytic Vegetation Present?</b> Yes _____ No <input checked="" type="checkbox"/>
Remarks:  Vegetation fails dominance test and Prevalence Index.	



## SOIL

Sampling Point: DG-07-W-+

[illegible]

## HYDROLOGY

Wetland Hydrology Indicators:		
Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (2 or more required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) ( <b>Riverine</b> )
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) ( <b>Riverine</b> )
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) ( <b>Riverine</b> )
<input type="checkbox"/> Water Marks (B1) ( <b>Nonriverine</b> )	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) ( <b>Nonriverine</b> )	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3) ( <b>Nonriverine</b> )	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present?    Yes <input type="checkbox"/> No <input type="checkbox"/> Depth (inches): _____ Water Table Present?    Yes <input type="checkbox"/> No <input type="checkbox"/> Depth (inches): _____ Saturation Present?    Yes <input type="checkbox"/> No <input type="checkbox"/> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		
No hydrology indicators observed.		

# WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: WDC MPDGACJW-07-W-37-1-IN City/County: Davis Sampling Date: 7/18/2016  
 Applicant/Owner: UDOT State: UT Sampling Point: MPDGACJW-4  
 Investigator(s): DG/JW/AC Section, Township, Range: 5 4N 2W  
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): none Slope (%): 1  
 Subregion (LRR): D Lat: 41.11197651 Long: -112.1009146 Datum: D WGS 1983  
 Soil Map Unit Name: Ford loam, shallow water table, 0 to 1 percent slopes NWI classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology ☒ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____	
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	
Remarks: Meets wetland criteria here, near drier non-wetland patch. Other portions of this wetland are "wetter".	

## VEGETATION – Use scientific names of plants.

<b>Tree Stratum</b> (Plot size: _____) 1. _____ 2. _____ 3. _____ 4. _____ _____ = Total Cover <b>Sapling/Shrub Stratum</b> (Plot size: _____) 1. _____ 2. _____ 3. _____ 4. _____ 5. _____ _____ = Total Cover <b>Herb Stratum</b> (Plot size: <u>5 foot radius</u> ) 1. <u>Juncus arcticus</u> 40% Yes FACW 2. <u>Distichlis spicata</u> 20% FAC 3. <u>Carex praegracilis</u> 60% Yes FACW 4. <u>Hordeum jubatum</u> 5% FAC 5. <u>Thinopyrum intermedium</u> 20% UPL 6. <u>Agrostis exarata</u> 20% FACW 7. _____ 8. _____ _____ = Total Cover <b>Woody Vine Stratum</b> (Plot size: _____) 1. _____ 2. _____ _____ = Total Cover % Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B) <b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____ <b>Hydrophytic Vegetation Indicators:</b> <input checked="" type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. <b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No _____
Remarks:	

# SOIL

Sampling Point: MPDGACJ

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-1	10YR 3/2	100%					SiLoam+	
1-4	7.5YR 3/3	100%					SiLoam+	
4-11	10YR 5/1	90%	10YR 6/2	10%			SiClLoam	
11+	10YR 5/1	80%	10YR 6/2	20%			SiClLoam	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) (**LRR C**)
- ☐ 1 cm Muck (A9) (**LRR D**)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)

- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☒ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- ☐ 1 cm Muck (A9) (**LRR C**)
- ☐ 2 cm Muck (A10) (**LRR B**)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes ☒ No ☐

Remarks:

# HYDROLOGY

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1) (**Nonriverine**)
- ☐ Sediment Deposits (B2) (**Nonriverine**)
- ☐ Drift Deposits (B3) (**Nonriverine**)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)

- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☒ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) (**Riverine**)
- ☐ Sediment Deposits (B2) (**Riverine**)
- ☐ Drift Deposits (B3) (**Riverine**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☒ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present? Yes ☐ No ☒ Depth (inches): \_\_\_\_\_

Water Table Present? Yes ☐ No ☒ Depth (inches): \_\_\_\_\_

Saturation Present? Yes ☐ No ☒ Depth (inches): \_\_\_\_\_  
(includes capillary fringe)

**Wetland Hydrology Present?** Yes ☒ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

# WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: WDC MPDGACJW-07-W-37-1-OUT City/County: Davis County Sampling Date: 7/18/2016  
 Applicant/Owner: UDOT State: UT Sampling Point: MPDGACJW-4  
 Investigator(s): MP/DG/JW/AC Section, Township, Range: 5 4N 2W  
 Landform (hillslope, terrace, etc.): toeslope Local relief (concave, convex, none): none Slope (%): 1%  
 Subregion (LRR): D Lat: 41.11302344 Long: -112.101426 Datum: D WGS 1983  
 Soil Map Unit Name: Ford loam, shallow water table, 0 to 1 percent slopes NWI classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology ☒ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Hydric Soil Present? Yes _____ No _____	
Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	
Remarks:  Upland vegetation. Didn't sample soils.	

## VEGETATION – Use scientific names of plants.

<b>Tree Stratum</b> (Plot size: _____) 1. _____ 2. _____ 3. _____ 4. _____ _____ = Total Cover <b>Sapling/Shrub Stratum</b> (Plot size: _____) 1. _____ 2. _____ 3. _____ 4. _____ 5. _____ _____ = Total Cover <b>Herb Stratum</b> (Plot size: <u>5 ft radius</u> ) 1. <u>Thinopyrum intermedium</u> <u>80%</u> <u>Yes</u> <u>NL</u> 2. <u>Juncus arcticus</u> <u>20%</u> <u>Yes</u> <u>FACW</u> 3. _____ 4. _____ 5. _____ 6. _____ 7. _____ 8. _____ _____ = Total Cover <b>Woody Vine Stratum</b> (Plot size: _____) 1. _____ 2. _____ _____ = Total Cover % Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50%</u> (A/B) <b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species <u>20</u> x 2 = <u>40</u> FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species <u>80</u> x 5 = <u>400</u> Column Totals: <u>100</u> (A) <u>440</u> (B) Prevalence Index = B/A = <u>4.4</u> <b>Hydrophytic Vegetation Indicators:</b> ___ Dominance Test is >50% ___ Prevalence Index is ≤3.0 <sup>1</sup> ___ Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. <b>Hydrophytic Vegetation Present?</b> Yes _____ No <input checked="" type="checkbox"/>
Remarks:	

## SOIL

Sampling Point: MPDGACJ+

[illegible]

## HYDROLOGY

Wetland Hydrology Indicators:		
Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (2 or more required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) ( <b>Riverine</b> )
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) ( <b>Riverine</b> )
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) ( <b>Riverine</b> )
<input type="checkbox"/> Water Marks (B1) ( <b>Nonriverine</b> )	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) ( <b>Nonriverine</b> )	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3) ( <b>Nonriverine</b> )	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <input type="checkbox"/> No <input type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input type="checkbox"/> No <input type="checkbox"/> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		
No indicators observed.		

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 5/15/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: \_\_\_\_\_ Sampling Point: 05-N-201205151022  
 Investigators: Ron Kass Paul Dawson Section, Township, Range S 31 T 5 R 2  
 Landform (hillslope, terrace, etc.): Toe of Slope Local Relief (concave, convex, none): None Slope(%) 2  
 Subregion (LRR): LRR D Lat: 41.1320305276 Long: -112.107254341 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Harrisville-Leland complex, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation X, Soil X, Hydrology X, significantly disturbed? Are "Normal Circumstances" present? Yes \_\_\_\_\_ No X  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> <b>Wetland ID:</b> _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	

Remarks:  
 Data point may have been part of a detention basin but has now been filled with at least 2 ft or more of fill. Vegetation partially regrowing with hydrophytes, but the soil is dry, non-hydric fill material.

## VEGETATION— Use scientific names of plants.

**Absolute % Cover** **Dominant Species** **Indicator Status**

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

Hordeum marinum	40	Y	FAC
Hordeum jubatum	5	N	FAC
Puccinellia nuttalliana	5	N	FACW
	50	=Total Cover	

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across all Strata: 1 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>5</u>	x 2 = <u>10</u>
FAC species <u>45</u>	x 3 = <u>135</u>
FACU species <u>0</u>	x 4 = <u>0</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>50</u> (A)	<u>145</u> (B)

Prevalence Index = B/A = 2.90

### Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
 Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No \_\_\_\_\_

% Bare Ground in Herb Stratum 50 % Cover of Biotic Crust

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation qualifies as hydrophytic.



**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 16	10YR	4.0 / 2					SILTY CLAY LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)           |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)       |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)   |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)   |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input type="checkbox"/> Depleted Matrix (F3)       |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)     |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)          |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |   |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)
- ☐ 2 cm Muck (A10) (LRR B)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No X

## Remarks:

Soil is imported fill, no hydric soil indicators present.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)
- ☐ Sediment Deposits (B2) (Riverine)
- ☐ Drift Deposits (B3) (Riverine)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

**Field Observations:**Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Water Table Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Saturation Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_

(includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

No wetland hydrology.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 7/13/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: \_\_\_\_\_ Sampling Point: 05-N-201207131010  
 Investigators: Mike Perkins Nate Nichols Section, Township, Range S 31 T 5 R 2  
 Landform (hillslope, terrace, etc.): Basin Local Relief (concave, convex, none): Concave Slope(%) 10  
 Subregion (LRR): LRR D Lat: 41.1311194142 Long: -112.107769059 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Warm Springs fine sandy loam, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> Wetland ID: _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	

Remarks:  
 Data point fails meet wetland criteria because of soils and hydrology.

## VEGETATION— Use scientific names of plants.

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
Distichlis spicata	25	Y	FAC
Atriplex micrantha	20	Y	UPL
Epilobium ciliatum	15	Y	FACW
Juncus arcticus	15	Y	FACW
Eleocharis palustris	2	N	OBL
	77	=Total Cover	

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across all Strata: 4 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 75.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>2</u>	x 1 = <u>2</u>
FACW species <u>30</u>	x 2 = <u>60</u>
FAC species <u>25</u>	x 3 = <u>75</u>
FACU species <u>0</u>	x 4 = <u>0</u>
UPL species <u>20</u>	x 5 = <u>100</u>
Column Totals: <u>77</u> (A)	<u>237</u> (B)

Prevalence Index = B/A = 3.08

### Hydrophytic Vegetation Indicators:

\_\_\_\_ Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
 \_\_\_\_ Prevalence Index ≤ 3.0  
 \_\_\_\_ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 \_\_\_\_ Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No \_\_\_\_\_

% Bare Ground in Herb Stratum 15 % Cover of Biotic Crust

Remarks: (Include photo numbers here or on a separate sheet.)

A wet meadow plant community with an invading annual weed.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 5	10YR	3.0 / 2	100				SILT LOAM	
5 to 13	10YR	4.0 / 1	100				CLAY LOAM	
13 to 18	10YR	4.0 / 1	90	10yr 6/4	2	C	CS	CLAY LOAM

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)           |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)       |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)   |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)   |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input type="checkbox"/> Depleted Matrix (F3)       |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)     |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)          |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |   |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)  
☐ 2 cm Muck (A10) (LRR B)  
☐ Reduced Vertic (F18)  
☐ Red Parent Material (TF2)  
☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No X

## Remarks:

Redox begins too deep in soil profile to fit the closest hydric indicator, F3. Soil not hydric.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)  
☐ Sediment Deposits (B2) (Riverine)  
☐ Drift Deposits (B3) (Riverine)  
☐ Drainage Patterns (B10)  
☐ Dry-Season Water Table (C2)  
☐ Crayfish Burrows (C8)  
☐ Saturation Visible on Aerial Imag.(C9)  
☐ Shallow Aquitard (D3)  
☒ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present?	Yes _____ No <u>X</u>	Depth (inches): _____
Water Table Present?	Yes _____ No <u>X</u>	Depth (inches): _____
Saturation Present?	Yes _____ No <u>X</u>	Depth (inches): _____

(includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

Dry area lacks sufficient evidence for wetland hydrology.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 5/15/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: \_\_\_\_\_ Sampling Point: 05-W-201205151005  
 Investigators: Ron Kass Paul Dawson Section, Township, Range S 31 T 5 R 2  
 Landform (hillslope, terrace, etc.): Basin Local Relief (concave, convex, none): Concave Slope(%) 1  
 Subregion (LRR): LRR D Lat: 41.132328308 Long: -112.107517121 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Harrisville-Leland complex, 0 to 1 percent slopes NWI Classification: PEMC  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____ Hydric Soil Present? Yes <u>X</u> No _____ Wetland Hydrology Present? Yes <u>X</u> No _____	Is the Sampled Area within a Wetland? Yes <u>X</u> No _____ Wetland ID: <u>05-CW-68</u>
---	--

Remarks:  
 Wetland is a constructed detention basin. It appears to have been much larger but is now been partially filled.

### VEGETATION— Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
<u>Tree Stratum</u>			
<u>Shrub Stratum</u>			
<u>Herb Stratum</u> (Plot size: <u>30 Ft</u> )			
Phragmites australis	40	Y	FACW
Eleocharis palustris	30	Y	OBL
Typha latifolia	20	Y	OBL
	90	=Total Cover	
<u>Vine Stratum</u>			

#### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 3 (A)  
 Total Number of Dominant Species Across all Strata: 3 (B)  
 Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

#### Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	<u>50</u>	x 1 =	<u>50</u>
FACW species	<u>40</u>	x 2 =	<u>80</u>
FAC species	<u>0</u>	x 3 =	<u>0</u>
FACU species	<u>0</u>	x 4 =	<u>0</u>
UPL species	<u>0</u>	x 5 =	<u>0</u>
Column Totals:	<u>90</u> (A)		<u>130</u> (B)

Prevalence Index = B/A= 1.44

#### Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
 Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No \_\_\_\_\_

% Bare Ground in Herb Stratum 5 % Cover of Biotic Crust \_\_\_\_\_

Remarks: (Include photo numbers here or on a separate sheet.)

Emergent marsh plant community.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)           |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)       |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)   |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)   |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input type="checkbox"/> Depleted Matrix (F3)       |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)     |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)          |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |   |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)  
☐ 2 cm Muck (A10) (LRR B)  
☐ Reduced Vertic (F18)  
☐ Red Parent Material (TF2)  
☒ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes X No \_\_\_\_\_**Remarks:**

Soils not investigated due to inundation in detention basin; assumed hydric.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input checked="" type="checkbox"/> Surface Water (A1)             | <input type="checkbox"/> Salt Crust (B11)                              |
| <input checked="" type="checkbox"/> High Water Table (A2)          | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input checked="" type="checkbox"/> Saturation (A3)                | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)  
☐ Sediment Deposits (B2) (Riverine)  
☐ Drift Deposits (B3) (Riverine)  
☐ Drainage Patterns (B10)  
☐ Dry-Season Water Table (C2)  
☐ Crayfish Burrows (C8)  
☐ Saturation Visible on Aerial Imag.(C9)  
☐ Shallow Aquitard (D3)  
☒ FAC-Neutral Test (D5)

**Field Observations:**Surface Water Present? Yes X No \_\_\_\_\_ Depth (inches): 4Water Table Present? Yes X No \_\_\_\_\_ Depth (inches): 0Saturation Present? Yes X No \_\_\_\_\_ Depth (inches): 0

(includes capillary fringe)

**Wetland Hydrology Present?** Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

**Remarks:**

Basin is fully inundated.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 5/15/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: \_\_\_\_\_ Sampling Point: 05-W-201205151055  
 Investigators: Ron Kass Paul Dawson Section, Township, Range S 31 T 5 R 2  
 Landform (hillslope, terrace, etc.): Toe of Slope Local Relief (concave, convex, none): Concave Slope(%) 2  
 Subregion (LRR): LRR D Lat: 41.1311238038 Long: -112.10794229 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Harrisville-Leland complex, 0 to 1 percent slopes NWI Classification: PEMC  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology X, significantly disturbed? Are "Normal Circumstances" present? Yes \_\_\_\_\_ No X  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ <b>Wetland ID:</b> <u>05-IW-22</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks:  
 Wetland is surrounded by fill material. Currently isolated.

## VEGETATION— Use scientific names of plants.

	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
<u>Tree Stratum</u>			
<u>Shrub Stratum</u>			
<u>Herb Stratum</u> (Plot size: <u>30 Ft</u> )			
Juncus arcticus	60	Y	FACW
Distichlis spicata	20	Y	FAC
	80	=Total Cover	
<u>Vine Stratum</u>			

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 2 (A)  
 Total Number of Dominant Species Across all Strata: 2 (B)  
 Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>60</u>	x 2 = <u>120</u>
FAC species <u>20</u>	x 3 = <u>60</u>
FACU species <u>0</u>	x 4 = <u>0</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>80</u> (A)	<u>180</u> (B)
Prevalence Index = B/A= <u>2.25</u>	

### Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
 Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No \_\_\_\_\_

% Bare Ground in Herb Stratum \_\_\_\_\_ % Cover of Biotic Crust \_\_\_\_\_

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation is hydrophytic.



**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 12	10YR	5.0 / 1		100			SILTY CLAY LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |  |
|--|--|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)                |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)            |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)        |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)        |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input checked="" type="checkbox"/> Depleted Matrix (F3) |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)         |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7)      |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)          |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)               |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |  |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)  
☐ 2 cm Muck (A10) (LRR B)  
☐ Reduced Vertic (F18)  
☐ Red Parent Material (TF2)  
☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☒ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): 12

**Hydric Soil Present?** Yes X No \_\_\_\_\_

Remarks:  
Depleted soil profile meets F3 indicator.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input checked="" type="checkbox"/> Water Marks (B1) (Nonriverine) | <input checked="" type="checkbox"/> Hydrogen Sulfide Odor (C1)         |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)  
☐ Sediment Deposits (B2) (Riverine)  
☐ Drift Deposits (B3) (Riverine)  
☒ Drainage Patterns (B10)  
☐ Dry-Season Water Table (C2)  
☐ Crayfish Burrows (C8)  
☐ Saturation Visible on Aerial Imag.(C9)  
☐ Shallow Aquitard (D3)  
☒ FAC-Neutral Test (D5)

**Field Observations:**Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Water Table Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Saturation Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_

(includes capillary fringe)

**Wetland Hydrology Present?** Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:  
Sampling point meets criteria for wetland hydrology.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 5/11/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: \_\_\_\_\_ Sampling Point: 06-N-201205111520  
 Investigators: Donovan Gross Brian Nicholson Section, Township, Range S 31 T 5 R 2  
 Landform (hillslope, terrace, etc.): Basin Local Relief (concave, convex, none): None Slope(%) 2  
 Subregion (LRR): LRR D Lat: 41.1228853028 Long: -112.108827129 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Ford loam, shallow water table, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> <b>Wetland ID:</b> _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	

Remarks:  
 Sampling point in pasture has hydrophytic vegetation, but does not contain hydric soils or evidence of wetland hydrology.

## VEGETATION— Use scientific names of plants.

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
Carex praegracilis	85	Y	FACW
Thinopyrum ponticum	5	N	UPL
	90	=Total Cover	

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across all Strata: 1 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	<u>0</u>	x 1 =	<u>0</u>
FACW species	<u>85</u>	x 2 =	<u>170</u>
FAC species	<u>0</u>	x 3 =	<u>0</u>
FACU species	<u>0</u>	x 4 =	<u>0</u>
UPL species	<u>5</u>	x 5 =	<u>25</u>
Column Totals:	<u>90</u> (A)		<u>195</u> (B)

Prevalence Index = B/A= 2.17

### Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
 Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No \_\_\_\_\_

% Bare Ground in Herb Stratum 10 % Cover of Biotic Crust 1

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation is hydrophytic.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix			Redox Features				Texture	Remarks
	Color (moist)		%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 6	10YR	4.0 / 3	100		0			SILTY CLAY LOAM	
6 to 24	10YR	5.0 / 3	100		0			SILTY CLAY LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)           |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)       |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)   |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)   |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input type="checkbox"/> Depleted Matrix (F3)       |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)     |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)          |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |   |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- |   |
|---|
| <input type="checkbox"/> 1 cm Muck (A9) (LRR C)     |
| <input type="checkbox"/> 2 cm Muck (A10) (LRR B)    |
| <input type="checkbox"/> Reduced Vertic (F18)       |
| <input type="checkbox"/> Red Parent Material (TF2)  |
| <input type="checkbox"/> Other (Explain in Remarks) |

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No X

## Remarks:

No hydric indicators observed in soil profile.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- |   |
|---|
| <input type="checkbox"/> Water Marks (B1) (Riverine)            |
| <input type="checkbox"/> Sediment Deposits (B2) (Riverine)      |
| <input type="checkbox"/> Drift Deposits (B3) (Riverine)         |
| <input type="checkbox"/> Drainage Patterns (B10)                |
| <input type="checkbox"/> Dry-Season Water Table (C2)            |
| <input type="checkbox"/> Crayfish Burrows (C8)                  |
| <input type="checkbox"/> Saturation Visible on Aerial Imag.(C9) |
| <input type="checkbox"/> Shallow Aquitard (D3)                  |
| <input checked="" type="checkbox"/> FAC-Neutral Test (D5)       |

**Field Observations:**

Surface Water Present?	Yes _____ No <u>X</u>	Depth (inches):	__
Water Table Present?	Yes _____ No <u>X</u>	Depth (inches):	__
Saturation Present?	Yes _____ No <u>X</u>	Depth (inches):	24

(includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

Area that is dry towards surface lacks sufficient evidence for wetland hydrology.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 5/14/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: \_\_\_\_\_ Sampling Point: 06-N-201205141250  
 Investigators: Ron Kass Paul Dawson Section, Township, Range S 31 T 5 R 2  
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): Convex Slope(%) 0  
 Subregion (LRR): LRR D Lat: 41.125873789 Long: -112.108038839 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Ford loam, shallow water table, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil X, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes \_\_\_\_\_ No X  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b>  Yes _____ No <u>X</u>  <b>Wetland ID:</b> _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	

Remarks:  
 Sampling point does not contain hydrophytic vegetation, hydric soils, or evidence of wetland hydrology. Some of this area has been disturbed and filled at some point.

## VEGETATION— Use scientific names of plants.

	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
<u>Tree Stratum</u>			
<u>Shrub Stratum</u>			
<u>Herb Stratum</u> (Plot size: <u>30 Ft</u> )			
Bromus tectorum	25	Y	UPL
Hordeum jubatum	20	Y	FAC
Thinopyrum ponticum	15	N	UPL
Elymus repens	10	N	FAC
Festuca pratensis	10	N	FACU
Carex praegracilis	3	N	FACW
Phragmites australis	2	N	FACW
	85	=Total Cover	

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 1 (A)  
  
 Total Number of Dominant Species Across all Strata: 2 (B)  
  
 Percent of Dominant Species That are OBL, FACW, or FAC: 50.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>5</u>	x 2 = <u>10</u>
FAC species <u>30</u>	x 3 = <u>90</u>
FACU species <u>10</u>	x 4 = <u>40</u>
UPL species <u>40</u>	x 5 = <u>200</u>
Column Totals: <u>85</u> (A)	<u>340</u> (B)
Prevalence Index = B/A= <u>4.00</u>	

### Hydrophytic Vegetation Indicators:

☐ Rapid Test for Hydrophytic Vegetation  
☐ Dominance Test > 50%  
☐ Prevalence Index ≤ 3.0  
☐ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
☐ Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes \_\_\_\_\_ No X

% Bare Ground in Herb Stratum 5 % Cover of Biotic Crust \_\_\_\_\_

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation is not hydrophytic.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 18	10YR	4.0 / 2		100			SILTY CLAY LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)           |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)       |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)   |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)   |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input type="checkbox"/> Depleted Matrix (F3)       |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)     |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)          |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |   |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- |   |
|---|
| <input type="checkbox"/> 1 cm Muck (A9) (LRR C)     |
| <input type="checkbox"/> 2 cm Muck (A10) (LRR B)    |
| <input type="checkbox"/> Reduced Vertic (F18)       |
| <input type="checkbox"/> Red Parent Material (TF2)  |
| <input type="checkbox"/> Other (Explain in Remarks) |

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No X

## Remarks:

Fill material from 0-24 inches.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- |   |
|---|
| <input type="checkbox"/> Water Marks (B1) (Riverine)            |
| <input type="checkbox"/> Sediment Deposits (B2) (Riverine)      |
| <input type="checkbox"/> Drift Deposits (B3) (Riverine)         |
| <input type="checkbox"/> Drainage Patterns (B10)                |
| <input type="checkbox"/> Dry-Season Water Table (C2)            |
| <input type="checkbox"/> Crayfish Burrows (C8)                  |
| <input type="checkbox"/> Saturation Visible on Aerial Imag.(C9) |
| <input type="checkbox"/> Shallow Aquitard (D3)                  |
| <input type="checkbox"/> FAC-Neutral Test (D5)                  |

**Field Observations:**Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Water Table Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Saturation Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_

(includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

No hydrology indicators observed.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 5/14/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: \_\_\_\_\_ Sampling Point: 06-N-201205141320  
 Investigators: Ron Kass Paul Dawson Section, Township, Range S 31 T 5 R 2  
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): Concave Slope(%) 0  
 Subregion (LRR): LRR D Lat: 41.1258726 Long: -112.108258528 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Ford loam, shallow water table, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> <b>Wetland ID:</b> _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	

Remarks:  
 Sampling point has hydrophytic vegetation, but does not contain hydric soils or evidence of wetland hydrology.

## VEGETATION— Use scientific names of plants.

	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
<u>Tree Stratum</u>			
<u>Shrub Stratum</u>			
<u>Herb Stratum</u> (Plot size: <u>30 Ft</u> )			
<u>Carex praegracilis</u>	<u>60</u>	<u>Y</u>	<u>FACW</u>
<u>Juncus arcticus</u>	<u>40</u>	<u>Y</u>	<u>FACW</u>
	<u>100</u>	<u>=Total Cover</u>	
<u>Vine Stratum</u>			

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 2 (A)  
 Total Number of Dominant Species Across all Strata: 2 (B)  
 Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>100</u>	x 2 = <u>200</u>
FAC species <u>0</u>	x 3 = <u>0</u>
FACU species <u>0</u>	x 4 = <u>0</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>100</u> (A)	<u>200</u> (B)
Prevalence Index = B/A= <u>2.00</u>	

### Hydrophytic Vegetation Indicators:

   Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
   Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
   Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No \_\_\_\_\_

% Bare Ground in Herb Stratum \_\_\_\_\_ % Cover of Biotic Crust \_\_\_\_\_

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation is hydrophytic.



Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 1	10YR	3.0/ 1					SANDY CLAY LOAM	
1 to 6	10YR	4.0/ 2					SILTY CLAY LOAM	
6 to 18	10YR	5.0/ 3					SILTY CLAY LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.      <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators:**

☐ Histosol (A1)☐ Histic Epipedon (A2)☐ Black Histic (A3)☐ Hydrogen Sulfide (A4)☐ Stratified Layers (A5) LRR C☐ 1 cm Muck (A9) LRR F D☐ Depleted Below Dark Surface (A11)☐ Thick Dark Surface (A12)☐ Sandy Mucky Mineral (S1)☐ Sandy Gleyed Matrix (S4)

☐ Sandy Redox (S5)☐ Stripped Matrix (S6)☐ Loamy Mucky Mineral (F1)☐ Loamy Gleyed Matrix (F2)☐ Depleted Matrix (F3)☐ Redox Dark Surface (F6)☐ Depleted Dark Surface (F7)☐ Redox Depressions (F8)☐ Vernal Pools (F9)

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

☐ 1 cm Muck (A9) (LRR C)☐ 2 cm Muck (A10) (LRR B)☐ Reduced Vertic (F18)☐ Red Parent Material (TF2)☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: Depth (inches):

Hydric Soil Present?

Yes  No 

X

Remarks:

No hydric indicators observed in soil profile.

HYDROLOGY

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

☐ Surface Water (A1)☐ High Water Table (A2)☐ Saturation (A3)☐ Water Marks (B1) (Nonriverine)☐ Sediment Deposits (B2) (Nonriverine)☐ Drift Deposits (B3) (Nonriverine)☐ Surface Soil Cracks (B6)☐ Inundation Visible on Aerial Imagery (B7)☐ Water-Stained Leaves (B9)

☐ Salt Crust (B11)☐ Biotic Crust (B12)☐ Aquatic Fauna (B13)☐ Hydrogen Sulfide Odor (C1)☐ Oxidized Rhizospheres along Living Roots (C3)☐ Presence of Reduced Iron (C4)☐ Recent Iron Reduction in Tilled Soils (C6)☐ Thin Muck Surface (C7)☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

☐ Water Marks (B1) (Riverine)☐ Sediment Deposits (B2) (Riverine)☐ Drift Deposits (B3) (Riverine)☐ Drainage Patterns (B10)☐ Dry-Season Water Table (C2)☐ Crayfish Burrows (C8)☐ Saturation Visible on Aerial Imag.(C9)☐ Shallow Aquitard (D3)☒ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present? Yes  No 

X

 Depth (inches):

Water Table Present? Yes  No 

X

 Depth (inches):

Saturation Present? Yes  No 

X

 Depth (inches):

(includes capillary fringe)

Wetland Hydrology Present?

Yes  No 

X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Sampling point lacks sufficient evidence for wetland hydrology. Upslope fill material blocks any surface flow.

US Army Corps of Engineers

HDR

Arid West – Version 2.0

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 5/14/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: \_\_\_\_\_ Sampling Point: 06-N-201205141336  
 Investigators: Ron Kass Paul Dawson Section, Township, Range S 31 T 5 R 2  
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): None Slope(%) 0  
 Subregion (LRR): LRR D Lat: 41.1266419489 Long: -112.109254924 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Ford loam, shallow water table, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology X, significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> <b>Wetland ID:</b> _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	

Remarks:  
 Sampling point has hydrophytic vegetation, but does not contain hydric soils or evidence of wetland hydrology.

## VEGETATION— Use scientific names of plants.

	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
<u>Tree Stratum</u>			
<u>Shrub Stratum</u>			
<u>Herb Stratum</u> (Plot size: <u>30 Ft</u> )			
<u>Distichlis spicata</u>	<u>60</u>	<u>Y</u>	<u>FAC</u>
<u>Carex praegracilis</u>	<u>20</u>	<u>Y</u>	<u>FACW</u>
<u>Juncus arcticus</u>	<u>20</u>	<u>Y</u>	<u>FACW</u>
	<u>100</u>	<u>=Total Cover</u>	
<u>Vine Stratum</u>			

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 3 (A)  
 Total Number of Dominant Species Across all Strata: 3 (B)  
 Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>40</u>	x 2 = <u>80</u>
FAC species <u>60</u>	x 3 = <u>180</u>
FACU species <u>0</u>	x 4 = <u>0</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>100</u> (A)	<u>260</u> (B)
Prevalence Index = B/A= <u>2.60</u>	

### Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
 Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No \_\_\_\_\_

% Bare Ground in Herb Stratum \_\_\_\_\_ % Cover of Biotic Crust \_\_\_\_\_

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation is hydrophytic.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 12	10YR	4.0 / 2	100				SANDY CLAY LOAM	
12 to 18	10YR	5.0 / 3	100				SANDY CLAY LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)           |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)       |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)   |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)   |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input type="checkbox"/> Depleted Matrix (F3)       |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)     |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)          |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |   |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)  
☐ 2 cm Muck (A10) (LRR B)  
☐ Reduced Vertic (F18)  
☐ Red Parent Material (TF2)  
☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No X

## Remarks:

No hydric indicators observed in soil profile.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)  
☐ Sediment Deposits (B2) (Riverine)  
☐ Drift Deposits (B3) (Riverine)  
☐ Drainage Patterns (B10)  
☐ Dry-Season Water Table (C2)  
☐ Crayfish Burrows (C8)  
☐ Saturation Visible on Aerial Imag.(C9)  
☐ Shallow Aquitard (D3)  
☒ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_  
Water Table Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_  
Saturation Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_  
(includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

Dry area lacks sufficient evidence for wetland hydrology. Upslope berm blocks any surface flows.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 5/14/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: \_\_\_\_\_ Sampling Point: 06-N-201205141355  
 Investigators: Ron Kass Paul Dawson Section, Township, Range S 31 T 5 R 2  
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): Concave Slope(%) 10  
 Subregion (LRR): LRR D Lat: 41.127751944 Long: -112.108313452 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Ford loam, shallow water table, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology X, significantly disturbed? Are "Normal Circumstances" present? Yes \_\_\_\_\_ No X  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> <b>Wetland ID:</b> _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	

Remarks:  
 Pasture with hydrophytic vegetation but no hydric soils or wetland hydrology.

## VEGETATION— Use scientific names of plants.

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
Juncus arcticus	60	Y	FACW
Carex praegracilis	20	Y	FACW
Symphyotrichum ciliatum	5	N	FACW
Pyrrocoma lanceolata	1	N	FAC
Triglochin maritima	1	N	OBL
	87	=Total Cover	

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across all Strata: 2 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>1</u>	x 1 = <u>1</u>
FACW species <u>85</u>	x 2 = <u>170</u>
FAC species <u>1</u>	x 3 = <u>3</u>
FACU species <u>0</u>	x 4 = <u>0</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>87</u> (A)	<u>174</u> (B)

Prevalence Index = B/A = 2.00

### Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
 Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No \_\_\_\_\_

% Bare Ground in Herb Stratum \_\_\_\_\_ % Cover of Biotic Crust \_\_\_\_\_

Remarks: (Include photo numbers here or on a separate sheet.)

Rush-dominated meadow pasture.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 3	10YR	4.0 / 2	100				SILT LOAM	
3 to 10	10YR	5.0 / 2	100				CLAY LOAM	
10 to 18	10YR	4.0 / 4	100				SILT LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)           |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)       |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)   |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)   |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input type="checkbox"/> Depleted Matrix (F3)       |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)     |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)          |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |   |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)  
☐ 2 cm Muck (A10) (LRR B)  
☐ Reduced Vertic (F18)  
☐ Red Parent Material (TF2)  
☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No X

## Remarks:

Fails to meet any hydric soil indicators.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)  
☐ Sediment Deposits (B2) (Riverine)  
☐ Drift Deposits (B3) (Riverine)  
☐ Drainage Patterns (B10)  
☐ Dry-Season Water Table (C2)  
☐ Crayfish Burrows (C8)  
☐ Saturation Visible on Aerial Imag.(C9)  
☐ Shallow Aquitard (D3)  
☒ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_  
Water Table Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_  
Saturation Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_  
(includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

Upslope berm blocking surface flow, no wetland hydrology.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 5/15/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: \_\_\_\_\_ Sampling Point: 06-N-201205150945  
 Investigators: Ron Kass Paul Dawson Section, Township, Range S 31 T 5 R 2  
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): Convex Slope(%) 1  
 Subregion (LRR): LRR D Lat: 41.1307218108 Long: -112.11018503 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Harrisville-Leland complex, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil X, Hydrology \_\_\_\_\_, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> <b>Wetland ID:</b> _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	

Remarks:  
 Sampling point has facultative vegetation that qualifies as hydrophytic. No hydric indicators observed although soils could be considered problematic. However, there is no evidence of wetland hydrology.

## VEGETATION— Use scientific names of plants.

**Absolute % Cover** **Dominant Species** **Indicator Status**

### Tree Stratum

### Shrub Stratum (Plot size: 30 Ft )

Sarcobatus vermiculatus

15 Y FAC

15 =Total Cover

### Herb Stratum (Plot size: 30 Ft )

Hordeum marinum

30 Y FAC

30 =Total Cover

### Vine Stratum

## Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across all Strata: 2 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

## Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	<u>0</u>	x 1 =	<u>0</u>
FACW species	<u>0</u>	x 2 =	<u>0</u>
FAC species	<u>45</u>	x 3 =	<u>135</u>
FACU species	<u>0</u>	x 4 =	<u>0</u>
UPL species	<u>0</u>	x 5 =	<u>0</u>
Column Totals:	<u>45</u> (A)		<u>135</u> (B)

Prevalence Index = B/A= 3.00

## Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
 Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No \_\_\_\_\_

% Bare Ground in Herb Stratum 50 % Cover of Biotic Crust

Remarks: (Include photo numbers here or on a separate sheet.)

Facultative vegetation passes Dominance Test.



**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 18	10YR	4.0 / 2		90	C	M	SILTY CLAY LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)           |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)       |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)   |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)   |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input type="checkbox"/> Depleted Matrix (F3)       |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)     |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)          |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |   |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- |   |
|---|
| <input type="checkbox"/> 1 cm Muck (A9) (LRR C)     |
| <input type="checkbox"/> 2 cm Muck (A10) (LRR B)    |
| <input type="checkbox"/> Reduced Vertic (F18)       |
| <input type="checkbox"/> Red Parent Material (TF2)  |
| <input type="checkbox"/> Other (Explain in Remarks) |

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No X**Remarks:**

No hydric indicators observed in soil profile, but high pH likely.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- |   |
|---|
| <input type="checkbox"/> Water Marks (B1) (Riverine)            |
| <input type="checkbox"/> Sediment Deposits (B2) (Riverine)      |
| <input type="checkbox"/> Drift Deposits (B3) (Riverine)         |
| <input type="checkbox"/> Drainage Patterns (B10)                |
| <input type="checkbox"/> Dry-Season Water Table (C2)            |
| <input type="checkbox"/> Crayfish Burrows (C8)                  |
| <input type="checkbox"/> Saturation Visible on Aerial Imag.(C9) |
| <input type="checkbox"/> Shallow Aquitard (D3)                  |
| <input type="checkbox"/> FAC-Neutral Test (D5)                  |

**Field Observations:**Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Water Table Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Saturation Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_

(includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

**Remarks:**

Area is completely dry with no evidence of wetland hydrology.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 5/16/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: \_\_\_\_\_ Sampling Point: 06-N-201205161204  
 Investigators: Donovan Gross Mike Perkins Section, Township, Range S 31 T 5 R 2  
 Landform (hillslope, terrace, etc.): Basin Local Relief (concave, convex, none): None Slope(%) 1  
 Subregion (LRR): LRR D Lat: 41.1245046443 Long: -112.106999269 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Ford loam, shallow water table, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> <b>Wetland ID:</b> _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	

Remarks:  
 Sampling point has hydrophytic vegetation, but does not contain hydric soils or evidence of wetland hydrology.

## VEGETATION— Use scientific names of plants.

**Absolute % Cover** **Dominant Species** **Indicator Status**

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

Juncus arcticus	60	Y	FACW
Carex praegracilis	30	Y	FACW
Hordeum brachyantherum	5	N	FACW
Epilobium ciliatum	2	N	FACW
	97	=Total Cover	

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across all Strata: 2 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>97</u>	x 2 = <u>194</u>
FAC species <u>0</u>	x 3 = <u>0</u>
FACU species <u>0</u>	x 4 = <u>0</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>97</u> (A)	<u>194</u> (B)

Prevalence Index = B/A = 2.00

### Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
 Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No \_\_\_\_\_

% Bare Ground in Herb Stratum 0 % Cover of Biotic Crust \_\_\_\_\_

Remarks: (Include photo numbers here or on a separate sheet.)  
 Although vegetation is mostly dried out, it qualifies as hydrophytic.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 3	10YR	3.0 / 3	100				LOAM	
3 to 10	10YR	3.0 / 2	100				SILTY CLAY LOAM	
10 to 18	10YR	4.0 / 3	100				SILTY CLAY LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- ☐ Histosol (A1)  
☐ Histic Epipedon (A2)  
☐ Black Histic (A3)  
☐ Hydrogen Sulfide (A4)  
☐ Stratified Layers (A5) LRR C  
☐ 1 cm Muck (A9) LRR F D  
☐ Depleted Below Dark Surface (A11)  
☐ Thick Dark Surface (A12)  
☐ Sandy Mucky Mineral (S1)  
☐ Sandy Gleyed Matrix (S4)

- ☐ Sandy Redox (S5)  
☐ Stripped Matrix (S6)  
☐ Loamy Mucky Mineral (F1)  
☐ Loamy Gleyed Matrix (F2)  
☐ Depleted Matrix (F3)  
☐ Redox Dark Surface (F6)  
☐ Depleted Dark Surface (F7)  
☐ Redox Depressions (F8)  
☐ Vernal Pools (F9)

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)  
☐ 2 cm Muck (A10) (LRR B)  
☐ Reduced Vertic (F18)  
☐ Red Parent Material (TF2)  
☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No X

## Remarks:

No hydric indicators observed in soil profile.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)  
☐ High Water Table (A2)  
☐ Saturation (A3)  
☐ Water Marks (B1) (Nonriverine)  
☐ Sediment Deposits (B2) (Nonriverine)  
☐ Drift Deposits (B3) (Nonriverine)  
☐ Surface Soil Cracks (B6)  
☐ Inundation Visible on Aerial Imagery (B7)  
☐ Water-Stained Leaves (B9)  
☐ Salt Crust (B11)  
☐ Biotic Crust (B12)  
☐ Aquatic Fauna (B13)  
☐ Hydrogen Sulfide Odor (C1)  
☐ Oxidized Rhizospheres along Living Roots (C3)  
☐ Presence of Reduced Iron (C4)  
☐ Recent Iron Reduction in Tilled Soils (C6)  
☐ Thin Muck Surface (C7)  
☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)  
☐ Sediment Deposits (B2) (Riverine)  
☐ Drift Deposits (B3) (Riverine)  
☐ Drainage Patterns (B10)  
☐ Dry-Season Water Table (C2)  
☐ Crayfish Burrows (C8)  
☐ Saturation Visible on Aerial Imag.(C9)  
☐ Shallow Aquitard (D3)  
☒ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_  
Water Table Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_  
Saturation Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_  
(includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

Dry area lacks sufficient evidence for wetland hydrology.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 5/22/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: \_\_\_\_\_ Sampling Point: 06-N-201205220900  
 Investigators: Donovan Gross Section, Township, Range S 31 T 5 R 2  
 Landform (hillslope, terrace, etc.): Basin Local Relief (concave, convex, none): None Slope(%) 1  
 Subregion (LRR): LRR D Lat: 41.1285995598 Long: -112.108187789 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Warm Springs fine sandy loam, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> <b>Wetland ID:</b> _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	

Remarks:  
 Sampling point has hydrophytic vegetation, but does not contain hydric soils or evidence of wetland hydrology.

## VEGETATION— Use scientific names of plants.

	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
<u>Tree Stratum</u>			
<u>Shrub Stratum</u>			
<u>Herb Stratum</u> (Plot size: <u>30 Ft</u> )			
Carex praegracilis	50	Y	FACW
Juncus arcticus	30	Y	FACW
Plantago lanceolata	10	N	FAC
Poa palustris	10	N	FAC
Sonchus arvensis	2	N	FACU
	102	=Total Cover	
<u>Vine Stratum</u>			

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 2 (A)  
 Total Number of Dominant Species Across all Strata: 2 (B)  
 Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>80</u>	x 2 = <u>160</u>
FAC species <u>20</u>	x 3 = <u>60</u>
FACU species <u>2</u>	x 4 = <u>8</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>102</u> (A)	<u>228</u> (B)
Prevalence Index = B/A= <u>2.24</u>	

### Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
 Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No \_\_\_\_\_

% Bare Ground in Herb Stratum 0 % Cover of Biotic Crust

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation is hydrophytic, wet meadow community.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 2	10YR	3.0 / 2		0			LOAM	
2 to 9	10YR	4.0 / 2		0			SILTY CLAY LOAM	
9 to 18	7.5YR	5.0 / 3		0			SILTY CLAY LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- ☐ Histosol (A1)  
☐ Histic Epipedon (A2)  
☐ Black Histic (A3)  
☐ Hydrogen Sulfide (A4)  
☐ Stratified Layers (A5) LRR C  
☐ 1 cm Muck (A9) LRR F D  
☐ Depleted Below Dark Surface (A11)  
☐ Thick Dark Surface (A12)  
☐ Sandy Mucky Mineral (S1)  
☐ Sandy Gleyed Matrix (S4)

- ☐ Sandy Redox (S5)  
☐ Stripped Matrix (S6)  
☐ Loamy Mucky Mineral (F1)  
☐ Loamy Gleyed Matrix (F2)  
☐ Depleted Matrix (F3)  
☐ Redox Dark Surface (F6)  
☐ Depleted Dark Surface (F7)  
☐ Redox Depressions (F8)  
☐ Vernal Pools (F9)

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)  
☐ 2 cm Muck (A10) (LRR B)  
☐ Reduced Vertic (F18)  
☐ Red Parent Material (TF2)  
☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No X

## Remarks:

No hydric indicators observed in soil profile.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)  
☐ High Water Table (A2)  
☐ Saturation (A3)  
☐ Water Marks (B1) (Nonriverine)  
☐ Sediment Deposits (B2) (Nonriverine)  
☐ Drift Deposits (B3) (Nonriverine)  
☐ Surface Soil Cracks (B6)  
☐ Inundation Visible on Aerial Imagery (B7)  
☐ Water-Stained Leaves (B9)  
☐ Salt Crust (B11)  
☐ Biotic Crust (B12)  
☐ Aquatic Fauna (B13)  
☐ Hydrogen Sulfide Odor (C1)  
☐ Oxidized Rhizospheres along Living Roots (C3)  
☐ Presence of Reduced Iron (C4)  
☐ Recent Iron Reduction in Tilled Soils (C6)  
☐ Thin Muck Surface (C7)  
☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)  
☐ Sediment Deposits (B2) (Riverine)  
☐ Drift Deposits (B3) (Riverine)  
☐ Drainage Patterns (B10)  
☐ Dry-Season Water Table (C2)  
☐ Crayfish Burrows (C8)  
☐ Saturation Visible on Aerial Imag.(C9)  
☐ Shallow Aquitard (D3)  
☒ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_  
Water Table Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_  
Saturation Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_  
(includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

Dry area lacks sufficient evidence for wetland hydrology.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 5/22/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet:  Sampling Point: 06-N-201205221045  
 Investigators: Donovan Gross Section, Township, Range S 31 T 5 R 2  
 Landform (hillslope, terrace, etc.): Basin Local Relief (concave, convex, none): None Slope(%) 1  
 Subregion (LRR): LRR D Lat: 41.1294298388 Long: -112.108391371 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Warm Springs fine sandy loam, 0 to 1 percent slopes NWI Classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No  (If No, explain in Remarks)  
 Are Vegetation , Soil , Hydrology , significantly disturbed? Are "Normal Circumstances" present? Yes X No   
 Are Vegetation , Soil , Hydrology , naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No <u></u>	Is the Sampled Area within a Wetland? Yes <u></u> No <u>X</u>
Hydric Soil Present? Yes <u></u> No <u>X</u>	
Wetland Hydrology Present? Yes <u></u> No <u>X</u>	
Wetland ID: <u></u>	

Remarks:  
 Sampling point has hydrophytic vegetation, but does not contain hydric soils or evidence of wetland hydrology.

## VEGETATION - Use scientific names of plants.

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

	Absolute % Cover	Dominant Species	Indicator Status
Carex praegracilis	30	Y	FACW
Festuca arundinacea	30	Y	FACU
Juncus arcticus	30	Y	FACW
Thinopyrum ponticum	5	N	UPL
	95	=Total Cover	

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 2 (A)  
 Total Number of Dominant Species Across all Strata: 3 (B)  
 Percent of Dominant Species That are OBL, FACW, or FAC: 66.7% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>60</u>	x 2 = <u>120</u>
FAC species <u>0</u>	x 3 = <u>0</u>
FACU species <u>30</u>	x 4 = <u>120</u>
UPL species <u>5</u>	x 5 = <u>25</u>
Column Totals: <u>95</u> (A)	<u>265</u> (B)
Prevalence Index = B/A = <u>2.79</u>	

### Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
 Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No

% Bare Ground in Herb Stratum 1 % Cover of Biotic Crust

Remarks: (Include photo numbers here or on a separate sheet.)  
 Although plants lack vigor (dried out), especially for time of year, vegetation qualifies as hydrophytic.



**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)		%	Color (moist)	%	Type <sup>1</sup>		
0 to 2	7.5YR	2.5 / 3	100				LOAM	Organic
2 to 7	10YR	5.0 / 3	100				SILTY CLAY LOAM	
7 to 18	7.5YR	4 / 3	100				CLAY LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)           |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)       |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)   |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)   |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input type="checkbox"/> Depleted Matrix (F3)       |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)     |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)          |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |   |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- |   |
|---|
| <input type="checkbox"/> 1 cm Muck (A9) (LRR C)     |
| <input type="checkbox"/> 2 cm Muck (A10) (LRR B)    |
| <input type="checkbox"/> Reduced Vertic (F18)       |
| <input type="checkbox"/> Red Parent Material (TF2)  |
| <input type="checkbox"/> Other (Explain in Remarks) |

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.☐ **Restrictive Layer (if observed):**Type: \_\_\_\_\_  
Depth (inches): \_\_\_\_\_**Hydric Soil Present?** Yes \_\_\_\_\_ No XRemarks:  
No hydric indicators observed in soil profile.**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- |   |
|---|
| <input type="checkbox"/> Water Marks (B1) (Riverine)            |
| <input type="checkbox"/> Sediment Deposits (B2) (Riverine)      |
| <input type="checkbox"/> Drift Deposits (B3) (Riverine)         |
| <input type="checkbox"/> Drainage Patterns (B10)                |
| <input type="checkbox"/> Dry-Season Water Table (C2)            |
| <input type="checkbox"/> Crayfish Burrows (C8)                  |
| <input type="checkbox"/> Saturation Visible on Aerial Imag.(C9) |
| <input type="checkbox"/> Shallow Aquitard (D3)                  |
| <input checked="" type="checkbox"/> FAC-Neutral Test (D5)       |

**Field Observations:**

Surface Water Present?	Yes _____ No <u>X</u>	Depth (inches):	__
Water Table Present?	Yes _____ No <u>X</u>	Depth (inches):	__
Saturation Present?	Yes _____ No <u>X</u>	Depth (inches):	__

(includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:  
Dry area lacks sufficient evidence for wetland hydrology.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 5/15/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: \_\_\_\_\_ Sampling Point: 06-W-201205150800  
 Investigators: Ron Kass Paul Dawson Section, Township, Range S 31 T 5 R 2  
 Landform (hillslope, terrace, etc.): Toe of Slope Local Relief (concave, convex, none): Concave Slope(%) 1  
 Subregion (LRR): LRR D Lat: 41.1259436475 Long: -112.107642946 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Ford loam, shallow water table, 0 to 1 percent slopes NWI Classification: PEMC  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology X, significantly disturbed? Are "Normal Circumstances" present? Yes \_\_\_\_\_ No X  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ Wetland ID: <u>06-W-88</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks:  
 Changing land use upslope might be reducing hydrology, but area currently still qualifies as a wetland.

<b>VEGETATION</b> — Use scientific names of plants. <u>Tree Stratum</u> <u>Shrub Stratum</u> <u>Herb Stratum</u> (Plot size: <u>30 Ft</u> ) <table border="1"> <tr> <td>Juncus arcticus</td> <td>60</td> <td>Y</td> <td>FACW</td> </tr> <tr> <td>Carex praegracilis</td> <td>20</td> <td>Y</td> <td>FACW</td> </tr> <tr> <td>Eleocharis palustris</td> <td>20</td> <td>Y</td> <td>OBL</td> </tr> <tr> <td></td> <td>100</td> <td colspan="2">=Total Cover</td> </tr> </table> <u>Vine Stratum</u>	Juncus arcticus	60	Y	FACW	Carex praegracilis	20	Y	FACW	Eleocharis palustris	20	Y	OBL		100	=Total Cover		<b>Dominance Test Worksheet:</b> Number of Dominant Species That are OBL, FACW, or FAC: <u>3</u> (A) Total Number of Dominant Species Across all Strata: <u>3</u> (B) Percent of Dominant Species That are OBL, FACW, or FAC: <u>100.0%</u> (A/B) <b>Prevalence Index Worksheet:</b> <table border="1"> <tr> <td>Total % Cover of:</td> <td>Multiply by:</td> </tr> <tr> <td>OBL species <u>20</u></td> <td>x 1 = <u>20</u></td> </tr> <tr> <td>FACW species <u>80</u></td> <td>x 2 = <u>160</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>0</u></td> <td>x 4 = <u>0</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>100</u> (A)</td> <td><u>180</u> (B)</td> </tr> <tr> <td colspan="2">Prevalence Index = B/A = <u>1.80</u></td> </tr> </table> <b>Hydrophytic Vegetation Indicators:</b> <u>  </u> Rapid Test for Hydrophytic Vegetation <u>X</u> Dominance Test > 50% <u>X</u> Prevalence Index ≤ 3.0 <u>  </u> Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet) <u>  </u> Problematic Hydrophytic Vegetation (Explain) Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. <b>Hydrophytic Vegetation Present?</b> Yes <u>X</u> No _____	Total % Cover of:	Multiply by:	OBL species <u>20</u>	x 1 = <u>20</u>	FACW species <u>80</u>	x 2 = <u>160</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>0</u>	x 4 = <u>0</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>100</u> (A)	<u>180</u> (B)	Prevalence Index = B/A = <u>1.80</u>	
Juncus arcticus	60	Y	FACW																														
Carex praegracilis	20	Y	FACW																														
Eleocharis palustris	20	Y	OBL																														
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Column Totals: <u>100</u> (A)	<u>180</u> (B)																																
Prevalence Index = B/A = <u>1.80</u>																																	

% Bare Ground in Herb Stratum 3 % Cover of Biotic Crust \_\_\_\_\_

Remarks: (Include photo numbers here or on a separate sheet.)  
 Vegetation is hydrophytic, wet meadow community.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)**

Depth (inches)	Matrix			Redox Features				Texture	Remarks
	Color (moist)		%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 6	10YR	4.0 / 2	100					SILTY CLAY LOAM	
6 to 18	10YR	5 / 2	60	GLE Y1 2.5/N	20	C	M	SILTY CLAY LOAM	Mn
6 to 18	10YR	4.0 / 2	20					SILTY CLAY LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- ☐ Histosol (A1)  
☐ Histic Epipedon (A2)  
☐ Black Histic (A3)  
☐ Hydrogen Sulfide (A4)  
☐ Stratified Layers (A5) LRR C  
☐ 1 cm Muck (A9) LRR F D  
☐ Depleted Below Dark Surface (A11)  
☐ Thick Dark Surface (A12)  
☐ Sandy Mucky Mineral (S1)  
☐ Sandy Gleyed Matrix (S4)  
☐ Sandy Redox (S5)  
☐ Stripped Matrix (S6)  
☐ Loamy Mucky Mineral (F1)  
☐ Loamy Gleyed Matrix (F2)  
☒ Depleted Matrix (F3)  
☐ Redox Dark Surface (F6)  
☐ Depleted Dark Surface (F7)  
☐ Redox Depressions (F8)  
☐ Vernal Pools (F9)

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)  
☐ 2 cm Muck (A10) (LRR B)  
☐ Reduced Vertic (F18)  
☐ Red Parent Material (TF2)  
☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes X No \_\_\_\_\_

## Remarks:

Soil profile meets F3 indicator.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- ☒ Surface Water (A1)  
☐ High Water Table (A2)  
☐ Saturation (A3)  
☐ Water Marks (B1) (Nonriverine)  
☐ Sediment Deposits (B2) (Nonriverine)  
☐ Drift Deposits (B3) (Nonriverine)  
☐ Surface Soil Cracks (B6)  
☐ Inundation Visible on Aerial Imagery (B7)  
☐ Water-Stained Leaves (B9)  
☐ Salt Crust (B11)  
☐ Biotic Crust (B12)  
☐ Aquatic Fauna (B13)  
☐ Hydrogen Sulfide Odor (C1)  
☐ Oxidized Rhizospheres along Living Roots (C3)  
☐ Presence of Reduced Iron (C4)  
☐ Recent Iron Reduction in Tilled Soils (C6)  
☐ Thin Muck Surface (C7)  
☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)  
☐ Sediment Deposits (B2) (Riverine)  
☐ Drift Deposits (B3) (Riverine)  
☒ Drainage Patterns (B10)  
☐ Dry-Season Water Table (C2)  
☐ Crayfish Burrows (C8)  
☐ Saturation Visible on Aerial Imag.(C9)  
☐ Shallow Aquitard (D3)  
☒ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_  
 Water Table Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_  
 Saturation Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_  
 (includes capillary fringe)

**Wetland Hydrology Present?** Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

Sampling point meets criteria for wetland hydrology because of drainage patterns and passing FAC-neutral test. No water in pit, but surface water was observed here during April 2012, prior to irrigation season.

# WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: WDC AC-06-W-16-OUT City/County: Davis County Sampling Date: 7/19/2016  
 Applicant/Owner: UDOT State: Utah Sampling Point: AC-06-W-16-4  
 Investigator(s): DG/AC Section, Township, Range: 31 5N 2W  
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): none Slope (%): 0  
 Subregion (LRR): D Lat: 41.124195 Long: -112.107241666999 Datum: D WGS 1983  
 Soil Map Unit Name: Ford loam, shallow water table, 0 to 1 percent slopes NWI classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/>	
Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	
Remarks: Lack of hydric soil indicators suggest this transitional area is not a wetland.	

## VEGETATION – Use scientific names of plants.

<b>Tree Stratum</b> (Plot size: _____) 1. _____ 2. _____ 3. _____ 4. _____ _____ = Total Cover <b>Sapling/Shrub Stratum</b> (Plot size: _____) 1. _____ 2. _____ 3. _____ 4. _____ 5. _____ _____ = Total Cover <b>Herb Stratum</b> (Plot size: <u>5 foot radius</u> ) 1. <u>Juncus arcticus</u> <u>70%</u> <u>FACW</u> 2. <u>Distichlis spicata</u> <u>50%</u> <u>FAC</u> 3. <u>Carex praegracilis</u> <u>20%</u> <u>FACW</u> 4. <u>Panicum capillare</u> <u>1%</u> <u>FACU</u> 5. _____ 6. _____ 7. _____ 8. _____ _____ = Total Cover <b>Woody Vine Stratum</b> (Plot size: _____) 1. _____ 2. _____ _____ = Total Cover % Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B) <b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____ <b>Hydrophytic Vegetation Indicators:</b> <input checked="" type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. <b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No _____
Remarks: Vegetation community passes dominance test.	

# SOIL

Sampling Point: AC-06-W-16

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-3.5	10YR 3/3	100%					SiLoam	
3.5-8	2.5Y 3/2	100%					SiClay	
8-18	10YR 4/2	100%					Clay	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) (**LRR C**)
- ☐ 1 cm Muck (A9) (**LRR D**)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)

- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- ☐ 1 cm Muck (A9) (**LRR C**)
- ☐ 2 cm Muck (A10) (**LRR B**)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No ☒

Remarks:

No redox features observed. Soil pit near 06-W-16.

# HYDROLOGY

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1) (**Nonriverine**)
- ☐ Sediment Deposits (B2) (**Nonriverine**)
- ☐ Drift Deposits (B3) (**Nonriverine**)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)

- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) (**Riverine**)
- ☐ Sediment Deposits (B2) (**Riverine**)
- ☐ Drift Deposits (B3) (**Riverine**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☒ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present? Yes \_\_\_\_\_ No \_\_\_\_\_ Depth (inches): \_\_\_\_\_

Water Table Present? Yes \_\_\_\_\_ No \_\_\_\_\_ Depth (inches): \_\_\_\_\_

Saturation Present? Yes \_\_\_\_\_ No \_\_\_\_\_ Depth (inches): \_\_\_\_\_  
(includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No hydrology indicators observed.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 5/14/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: \_\_\_\_\_ Sampling Point: 05-N-201205141056  
 Investigators: Mike Perkins Nate Nichols Section, Township, Range S 30 T 5 R 2  
 Landform (hillslope, terrace, etc.): Basin Local Relief (concave, convex, none): Concave Slope(%) 2  
 Subregion (LRR): LRR D Lat: 41.1395814911 Long: -112.108262418 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Harrisville-Leland complex, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> <b>Wetland ID:</b> _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks:  
 Non-wetland point adjacent to wetland. Soils nearly meet hydric criteria - chroma is 3 not 2 but with redox concentrations. Wetland hydrology was observed, along with hydrophytic vegetation that includes some dominant upland species. Wetland "in" pit adjacent downslope (east); area transitions to upland vegetation upslope (west).

## VEGETATION - Use scientific names of plants.

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
Thinopyrum intermedium	35	Y	UPL
Trifolium fragiferum	25	Y	FACU
Carex praegracilis	20	Y	FACW
Distichlis spicata	20	Y	FAC
Juncus arcticus	20	Y	FACW
Taraxacum officinale	1	N	FACU
	121	=Total Cover	

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 3 (A)  
 Total Number of Dominant Species Across all Strata: 5 (B)  
 Percent of Dominant Species That are OBL, FACW, or FAC: 60.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>40</u>	x 2 = <u>80</u>
FAC species <u>20</u>	x 3 = <u>60</u>
FACU species <u>26</u>	x 4 = <u>104</u>
UPL species <u>35</u>	x 5 = <u>175</u>
Column Totals: <u>121</u> (A)	<u>419</u> (B)
Prevalence Index = B/A = <u>3.46</u>	

### Hydrophytic Vegetation Indicators:

\_\_\_\_ Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
 \_\_\_\_ Prevalence Index ≤ 3.0  
 \_\_\_\_ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 \_\_\_\_ Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No \_\_\_\_\_

% Bare Ground in Herb Stratum 0 % Cover of Biotic Crust \_\_\_\_\_

Remarks: (Include photo numbers here or on a separate sheet.)  
 Mixed wet meadow community with increasing upland species passes Dominance Test.



**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)**

Depth (inches)	Matrix			Redox Features				Texture	Remarks
	Color (moist)		%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 2	10YR	4.0 / 2	100					LOAMY SAND	
2 to 14	10YR	4.0 / 3	85	10YR 4/6	10	C	PL	LOAMY SAND	also: 10YR 3/2 5%
14 to 18	10YR	5.0 / 2	100		10	C	PL	SANDY CLAY LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)           |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)       |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)   |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)   |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input type="checkbox"/> Depleted Matrix (F3)       |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)     |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)          |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |   |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)  
☐ 2 cm Muck (A10) (LRR B)  
☐ Reduced Vertic (F18)  
☐ Red Parent Material (TF2)  
☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No X

## Remarks:

Soil profile doesn't fit any indicators.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input checked="" type="checkbox"/> Saturation (A3)                | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)  
☐ Sediment Deposits (B2) (Riverine)  
☐ Drift Deposits (B3) (Riverine)  
☐ Drainage Patterns (B10)  
☐ Dry-Season Water Table (C2)  
☐ Crayfish Burrows (C8)  
☐ Saturation Visible on Aerial Imag.(C9)  
☐ Shallow Aquitard (D3)  
☒ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present?	Yes _____ No <u>X</u>	Depth (inches):	__
Water Table Present?	Yes <u>X</u> No _____	Depth (inches):	13
Saturation Present?	Yes <u>X</u> No _____	Depth (inches):	11

(includes capillary fringe)

**Wetland Hydrology Present?** Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

Meets saturation requirements for wetland hydrology. Water table is just outside of the minimum requirements.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 5/14/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: \_\_\_\_\_ Sampling Point: 05-N-201205141313  
 Investigators: Mike Perkins Nate Nichols Section, Township, Range S 30 T 5 R 2  
 Landform (hillslope, terrace, etc.): Basin Local Relief (concave, convex, none): Concave Slope(%) 5  
 Subregion (LRR): LRR D Lat: 41.1349582387 Long: -112.106820029 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Harrisville-Leland complex, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> <b>Wetland ID:</b> _____
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes _____ No <u>X</u>	

Remarks:  
 Sampling point is down slope from a large, well used irrigation ditch. Soils and vegetation pass, but sufficient evidence of wetland hydrology was not observed. Site is likely heavily irrigated.

## VEGETATION— Use scientific names of plants.

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
Carex nebrascensis	60	Y	OBL
Juncus arcticus	30	Y	FACW
Poa pratensis	10	N	FAC
Trifolium fragiferum	5	N	FACU
	105	=Total Cover	

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across all Strata: 2 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>60</u>	x 1 = <u>60</u>
FACW species <u>30</u>	x 2 = <u>60</u>
FAC species <u>10</u>	x 3 = <u>30</u>
FACU species <u>5</u>	x 4 = <u>20</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>105</u> (A)	<u>170</u> (B)

Prevalence Index = B/A = 1.62

### Hydrophytic Vegetation Indicators:

       Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
       Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
       Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No \_\_\_\_\_

% Bare Ground in Herb Stratum 0 % Cover of Biotic Crust 0

Remarks: (Include photo numbers here or on a separate sheet.)  
 Dominated by wet meadow plant species and also contains blue grass and clover.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)**

Depth (inches)	Matrix			Redox Features				Texture	Remarks
	Color (moist)		%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 3	10YR	3.0 / 2	100					SILTY CLAY LOAM	
3 to 15	10YR	4.0 / 1	95	10YR 2/1	2	C	M	SILTY CLAY LOAM	Mn
3 to 15		/		10YR 6/3	3	C	M	SILTY CLAY LOAM	
15 to 20	10YR	4.0 / 2	100					SILTY CLAY LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)           |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)       |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)   |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)   |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input type="checkbox"/> Depleted Matrix (F3)       |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)     |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)          |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |   |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)  
☐ 2 cm Muck (A10) (LRR B)  
☐ Reduced Vertic (F18)  
☐ Red Parent Material (TF2)  
☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes X No \_\_\_\_\_

## Remarks:

Soil is hydric based on indicator F3.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)  
☐ Sediment Deposits (B2) (Riverine)  
☐ Drift Deposits (B3) (Riverine)  
☐ Drainage Patterns (B10)  
☐ Dry-Season Water Table (C2)  
☐ Crayfish Burrows (C8)  
☐ Saturation Visible on Aerial Imag.(C9)  
☐ Shallow Aquitard (D3)  
☒ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present?	Yes _____ No <u>X</u>	Depth (inches):	__ --
Water Table Present?	Yes <u>X</u> No _____	Depth (inches):	__ 20
Saturation Present?	Yes <u>X</u> No _____	Depth (inches):	__ 17

(includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

Sampling point with dry surface soils lacks sufficient hydrology indicators to indicate wetland hydrology.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 5/15/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet:  Sampling Point: 05-N-201205150952  
 Investigators: Mike Perkins Trent Toler Section, Township, Range S 30 T 5 R 2  
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): Concave Slope(%) 2  
 Subregion (LRR): LRR D Lat: 41.1335784208 Long: -112.107689214 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Harrisville-Leland complex, 0 to 1 percent slopes NWI Classification:   
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No  (If No, explain in Remarks)  
 Are Vegetation , Soil , Hydrology , significantly disturbed? Are "Normal Circumstances" present? Yes X No   
 Are Vegetation , Soil , Hydrology , naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No <u></u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u></u> No <u>X</u> Wetland ID: <u></u>
Hydric Soil Present? Yes <u></u> No <u>X</u>	
Wetland Hydrology Present? Yes <u>X</u> No <u></u>	

Remarks:  
 Sampling point lacks hydric soils; conditions become higher and drier to south. Primary hydrology source may also be irrigation runoff from adjacent pastures to the east.

## VEGETATION— Use scientific names of plants.

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
Juncus arcticus	60	Y	FACW
Carex nebrascensis	10	N	OBL
Thinopyrum intermedium	10	N	UPL
	80	=Total Cover	

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 1 (A)  
 Total Number of Dominant Species Across all Strata: 1 (B)  
 Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	<u>10</u>	x 1 =	<u>10</u>
FACW species	<u>60</u>	x 2 =	<u>120</u>
FAC species	<u>0</u>	x 3 =	<u>0</u>
FACU species	<u>0</u>	x 4 =	<u>0</u>
UPL species	<u>10</u>	x 5 =	<u>50</u>
Column Totals:	<u>80</u> (A)		<u>180</u> (B)
Prevalence Index = B/A=		<u>2.25</u>	

### Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
 Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No

% Bare Ground in Herb Stratum 10 % Cover of Biotic Crust

Remarks: (Include photo numbers here or on a separate sheet.)

Wet meadow community with some invading wheatgrass.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 2	10YR 2.0 / 2	100					SILTY CLAY LOAM	Dense root mat
2 to 11	10YR 4.0 / 2	100					CLAY LOAM	
11 to 18	10YR 5.0 / 3	100					SANDY CLAY LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)           |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)       |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)   |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)   |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input type="checkbox"/> Depleted Matrix (F3)       |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)     |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)          |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |   |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)  
☐ 2 cm Muck (A10) (LRR B)  
☐ Reduced Vertic (F18)  
☐ Red Parent Material (TF2)  
☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_  
Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No X

Remarks:  
Soils did not meet any hydric indicator.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input checked="" type="checkbox"/> Saturation (A3)                | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)  
☐ Sediment Deposits (B2) (Riverine)  
☐ Drift Deposits (B3) (Riverine)  
☐ Drainage Patterns (B10)  
☐ Dry-Season Water Table (C2)  
☐ Crayfish Burrows (C8)  
☐ Saturation Visible on Aerial Imag.(C9)  
☐ Shallow Aquitard (D3)  
☒ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present?	Yes _____ No <u>X</u>	Depth (inches):	__
Water Table Present?	Yes _____ No <u>X</u>	Depth (inches):	13
Saturation Present?	Yes <u>X</u> No _____	Depth (inches):	11

(includes capillary fringe)

**Wetland Hydrology Present?** Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:  
Saturation within 12 in. meets wetland hydrology indicator, and the water table is also very close to meeting high water table indicator (within 20 minutes of digging pit).

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Weber County Sampling Date: 5/17/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: \_\_\_\_\_ Sampling Point: 02-W-201205171347  
 Investigators: Donovan Gross Brian Nicholson Section, Township, Range S 8 T 5 R 2  
 Landform (hillslope, terrace, etc.): Basin Local Relief (concave, convex, none): Concave Slope(%) 2  
 Subregion (LRR): LRR D Lat: 41.1815333962 Long: -112.10071305-N-201 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Warm Springs fine sandy loam, 0 to 1 percent slopes NWI Classification: PEMA  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____ Hydric Soil Present? Yes <u>X</u> No _____ Wetland Hydrology Present? Yes <u>X</u> No _____	Is the Sampled Area within a Wetland? Yes <u>X</u> No _____ Wetland ID: <u>02-W-82</u>
---	---

Remarks:  
 Emergent marsh basins surrounded by pastures.

<b>VEGETATION</b> — Use scientific names of plants. <u>Tree Stratum</u> <u>Shrub Stratum</u> <u>Herb Stratum</u> (Plot size: <u>30 Ft</u> ) <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="border-bottom: 1px solid black; width: 40%;">Carex nebrascensis</td> <td style="border-bottom: 1px solid black; width: 10%; text-align: center;">50</td> <td style="border-bottom: 1px solid black; width: 10%; text-align: center;">Y</td> <td style="border-bottom: 1px solid black; width: 40%; text-align: center;">OBL</td> </tr> <tr> <td style="border-bottom: 1px solid black;">Festuca arundinacea</td> <td style="border-bottom: 1px solid black; text-align: center;">20</td> <td style="border-bottom: 1px solid black; text-align: center;">Y</td> <td style="border-bottom: 1px solid black; text-align: center;">FACU</td> </tr> <tr> <td style="border-bottom: 1px solid black;">Juncus arcticus</td> <td style="border-bottom: 1px solid black; text-align: center;">20</td> <td style="border-bottom: 1px solid black; text-align: center;">Y</td> <td style="border-bottom: 1px solid black; text-align: center;">FACW</td> </tr> <tr> <td></td> <td style="text-align: center;">90</td> <td colspan="2" style="text-align: center;">=Total Cover</td> </tr> </table> <u>Vine Stratum</u>	Carex nebrascensis	50	Y	OBL	Festuca arundinacea	20	Y	FACU	Juncus arcticus	20	Y	FACW		90	=Total Cover		<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th style="text-align: left;"><u>Absolute % Cover</u></th> <th style="text-align: left;"><u>Dominant Species</u></th> <th style="text-align: left;"><u>Indicator Status</u></th> </tr> </table> <div style="border: 1px solid black; padding: 5px; margin-top: 5px;"> <b>Dominance Test Worksheet:</b>          Number of Dominant Species That are OBL, FACW, or FAC: <u>2</u> (A)          Total Number of Dominant Species Across all Strata: <u>3</u> (B)          Percent of Dominant Species That are OBL, FACW, or FAC: <u>66.7%</u> (A/B)       </div> <div style="border: 1px solid black; padding: 5px; margin-top: 5px;"> <b>Prevalence Index Worksheet:</b>  <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 40%;">Total % Cover of:</td> <td style="width: 10%;"></td> <td style="width: 10%;">Multiply by:</td> <td style="width: 40%;"></td> </tr> <tr> <td>OBL species</td> <td style="text-align: center;">50</td> <td>x 1 =</td> <td style="text-align: center;">50</td> </tr> <tr> <td>FACW species</td> <td style="text-align: center;">20</td> <td>x 2 =</td> <td style="text-align: center;">40</td> </tr> <tr> <td>FAC species</td> <td style="text-align: center;">0</td> <td>x 3 =</td> <td style="text-align: center;">0</td> </tr> <tr> <td>FACU species</td> <td style="text-align: center;">20</td> <td>x 4 =</td> <td style="text-align: center;">80</td> </tr> <tr> <td>UPL species</td> <td style="text-align: center;">0</td> <td>x 5 =</td> <td style="text-align: center;">0</td> </tr> <tr> <td>Column Totals:</td> <td style="text-align: center;">90 (A)</td> <td></td> <td style="text-align: center;">170 (B)</td> </tr> </table> <p style="text-align: right; margin-top: 5px;"><i>Prevalence Index = B/A=</i> <u>1.89</u></p> </div> <div style="border: 1px solid black; padding: 5px; margin-top: 5px;"> <b>Hydrophytic Vegetation Indicators:</b>  <u>      </u> Rapid Test for Hydrophytic Vegetation  <u>X</u> Dominance Test &gt; 50%  <u>X</u> Prevalence Index ≤ 3.0  <u>      </u> Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  <u>      </u> Problematic Hydrophytic Vegetation (Explain)          Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.       </div> <div style="border: 1px solid black; padding: 5px; margin-top: 5px;"> <b>Hydrophytic Vegetation Present?</b> Yes <u>X</u> No _____       </div>	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>	Total % Cover of:		Multiply by:		OBL species	50	x 1 =	50	FACW species	20	x 2 =	40	FAC species	0	x 3 =	0	FACU species	20	x 4 =	80	UPL species	0	x 5 =	0	Column Totals:	90 (A)		170 (B)
Carex nebrascensis	50	Y	OBL																																													
Festuca arundinacea	20	Y	FACU																																													
Juncus arcticus	20	Y	FACW																																													
	90	=Total Cover																																														
<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>																																														
Total % Cover of:		Multiply by:																																														
OBL species	50	x 1 =	50																																													
FACW species	20	x 2 =	40																																													
FAC species	0	x 3 =	0																																													
FACU species	20	x 4 =	80																																													
UPL species	0	x 5 =	0																																													
Column Totals:	90 (A)		170 (B)																																													

% Bare Ground in Herb Stratum 2 % Cover of Biotic Crust \_\_\_\_\_

Remarks: (Include photo numbers here or on a separate sheet.)  
 Nebraska sedge wetland with rush and fescue.





# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 5/15/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: \_\_\_\_\_ Sampling Point: 05-N-201205151148  
 Investigators: Mike Perkins Trent Toler Section, Township, Range S 30 T 5 R 2  
 Landform (hillslope, terrace, etc.): Top of Slope Local Relief (concave, convex, none): Convex Slope(%) 2  
 Subregion (LRR): LRR D Lat: 41.1351646132 Long: -112.106890656 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Harrisville-Leland complex, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology X, significantly disturbed? Are "Normal Circumstances" present? Yes \_\_\_\_\_ No X  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u>  <b>Wetland ID:</b> _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	

Remarks:  
 Sampling point is not a wetland because soils and hydrology failed to indicate a wetland. Site is likely irrigated from a ditch to the east.

## VEGETATION - Use scientific names of plants.

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
Juncus arcticus	40	Y	FACW
Thinopyrum intermedium	25	Y	UPL
Carex nebrascensis	20	N	OBL
Carex praegracilis	10	N	FACW
Distichlis spicata	10	N	FAC
	105	=Total Cover	

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across all Strata: 2 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 50.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>20</u>	x 1 = <u>20</u>
FACW species <u>50</u>	x 2 = <u>100</u>
FAC species <u>10</u>	x 3 = <u>30</u>
FACU species <u>0</u>	x 4 = <u>0</u>
UPL species <u>25</u>	x 5 = <u>125</u>
Column Totals: <u>105</u> (A)	<u>275</u> (B)

Prevalence Index = B/A = 2.62

### Hydrophytic Vegetation Indicators:

\_\_\_\_ Rapid Test for Hydrophytic Vegetation  
 \_\_\_\_ Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
 \_\_\_\_ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 \_\_\_\_ Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No \_\_\_\_\_

% Bare Ground in Herb Stratum 0 % Cover of Biotic Crust \_\_\_\_\_

Remarks: (Include photo numbers here or on a separate sheet.)  
 Mixed community of wet meadow plant species and wheatgrass.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)		Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 2	10YR	2.0 / 2	100				SANDY CLAY LOAM	Organic root mat
2 to 7	10YR	4.0 / 1	100				SANDY CLAY LOAM	
7 to 15	10YR	3.0 / 1	100				SANDY CLAY	
15 to 19	10YR	3.0 / 2	100				SANDY CLAY	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)           |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)       |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)   |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)   |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input type="checkbox"/> Depleted Matrix (F3)       |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)     |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)          |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |   |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)  
☐ 2 cm Muck (A10) (LRR B)  
☐ Reduced Vertic (F18)  
☐ Red Parent Material (TF2)  
☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No X

## Remarks:

Fails to meet any hydric soil indicators.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)  
☐ Sediment Deposits (B2) (Riverine)  
☐ Drift Deposits (B3) (Riverine)  
☐ Drainage Patterns (B10)  
☐ Dry-Season Water Table (C2)  
☐ Crayfish Burrows (C8)  
☐ Saturation Visible on Aerial Imag.(C9)  
☐ Shallow Aquitard (D3)  
☒ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present?	Yes _____ No <u>X</u>	Depth (inches):	____
Water Table Present?	Yes _____ No <u>X</u>	Depth (inches):	____
Saturation Present?	Yes _____ No <u>X</u>	Depth (inches):	15

(includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

Area subject to irrigation from ditch to east, but fails meet wetland hydrology criteria.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 5/15/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet:  Sampling Point: 05-N-201205151432  
 Investigators: Trent Toler Mike Perkins Section, Township, Range S 30 T 5 R 2  
 Landform (hillslope, terrace, etc.): Toe of Slope Local Relief (concave, convex, none): Concave Slope(%) 2  
 Subregion (LRR): LRR D Lat: 41.1357004241 Long: -112.106274257 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Harrisville-Leland complex, 0 to 1 percent slopes NWI Classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No  (If No, explain in Remarks)  
 Are Vegetation , Soil , Hydrology , significantly disturbed? Are "Normal Circumstances" present? Yes  No X  
 Are Vegetation , Soil , Hydrology X, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No <u></u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u></u> No <u>X</u>  <b>Wetland ID:</b> <u></u>
Hydric Soil Present? Yes <u></u> No <u>X</u>	
Wetland Hydrology Present? Yes <u></u> No <u>X</u>	

Remarks:  
 Upland point, though location receives considerable irrigation water. Vegetation passes but soils and hydrology do not.

## VEGETATION— Use scientific names of plants.

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
Poa pratensis	50	Y	FAC
Carex nebrascensis	30	Y	OBL
Trifolium repens	15	N	FACU
Juncus arcticus	5	N	FACW
	100	=Total Cover	

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across all Strata: 2 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>30</u>	x 1 = <u>30</u>
FACW species <u>5</u>	x 2 = <u>10</u>
FAC species <u>50</u>	x 3 = <u>150</u>
FACU species <u>15</u>	x 4 = <u>60</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>100</u> (A)	<u>250</u> (B)

Prevalence Index = B/A = 2.50

### Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
 Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No

% Bare Ground in Herb Stratum 0 % Cover of Biotic Crust

Remarks: (Include photo numbers here or on a separate sheet.)

Mix of bluegrass and Nebraska sedge.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
to	/							
0 to 16	10YR 3.0 / 2	90	10YR 2/1	3	C	M	SILTY CLAY LOAM	also: 10YR 4/3 7%
16 to 20	10YR 4.0 / 3	100					SILTY CLAY LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)           |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)       |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)   |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)   |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input type="checkbox"/> Depleted Matrix (F3)       |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)     |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)          |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |   |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- |   |
|---|
| <input type="checkbox"/> 1 cm Muck (A9) (LRR C)     |
| <input type="checkbox"/> 2 cm Muck (A10) (LRR B)    |
| <input type="checkbox"/> Reduced Vertic (F18)       |
| <input type="checkbox"/> Red Parent Material (TF2)  |
| <input type="checkbox"/> Other (Explain in Remarks) |

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.☐ **Restrictive Layer (if observed):**Type: \_\_\_\_\_  
Depth (inches): \_\_\_\_\_**Hydric Soil Present?** Yes \_\_\_\_\_ No X

## Remarks:

Fails F6 Redox Dark Surface because redox is faint. Does not meet hydric soil indicators.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- |   |
|---|
| <input type="checkbox"/> Water Marks (B1) (Riverine)            |
| <input type="checkbox"/> Sediment Deposits (B2) (Riverine)      |
| <input type="checkbox"/> Drift Deposits (B3) (Riverine)         |
| <input type="checkbox"/> Drainage Patterns (B10)                |
| <input type="checkbox"/> Dry-Season Water Table (C2)            |
| <input type="checkbox"/> Crayfish Burrows (C8)                  |
| <input type="checkbox"/> Saturation Visible on Aerial Imag.(C9) |
| <input type="checkbox"/> Shallow Aquitard (D3)                  |
| <input checked="" type="checkbox"/> FAC-Neutral Test (D5)       |

**Field Observations:**

Surface Water Present?	Yes _____ No <u>X</u>	Depth (inches): _____
Water Table Present?	Yes _____ No <u>X</u>	Depth (inches): _____
Saturation Present?	Yes _____ No <u>X</u>	Depth (inches): _____

(includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

Area gets heavy irrigation from south ditch; no shallow water table or saturation.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 5/16/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet:  Sampling Point: 05-N-201205161425  
 Investigators: Trent Toler Section, Township, Range S 30 T 5 R 2  
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): None Slope(%) 0  
 Subregion (LRR): LRR D Lat: 41.1351033159 Long: -112.105172001 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Harrisville-Leland complex, 0 to 1 percent slopes NWI Classification:   
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No  (If No, explain in Remarks)  
 Are Vegetation , Soil , Hydrology , significantly disturbed? Are "Normal Circumstances" present? Yes X No   
 Are Vegetation , Soil , Hydrology , naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u></u> No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u></u> No <u>X</u>  <b>Wetland ID:</b> <u></u>
Hydric Soil Present? Yes <u></u> No <u>X</u>	
Wetland Hydrology Present? Yes <u></u> No <u>X</u>	

Remarks:  
 Mesic upland area.

## VEGETATION - Use scientific names of plants.

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
Elymus repens	30	Y	FAC
Festuca pratensis	30	Y	FACU
Poa pratensis	15	N	FAC
Atriplex micrantha	10	N	UPL
Hordeum jubatum	10	N	FAC
Cirsium vulgare	5	N	FACU
Dipsacus fullonum	5	N	FAC
	105 = Total Cover		

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 1 (A)  
 Total Number of Dominant Species Across all Strata: 2 (B)  
 Percent of Dominant Species That are OBL, FACW, or FAC: 50.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>0</u>	x 2 = <u>0</u>
FAC species <u>60</u>	x 3 = <u>180</u>
FACU species <u>35</u>	x 4 = <u>140</u>
UPL species <u>10</u>	x 5 = <u>50</u>
Column Totals: <u>105</u> (A)	<u>370</u> (B)
Prevalence Index = B/A = <u>3.52</u>	

### Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Vegetation  
 Dominance Test > 50%  
 Prevalence Index ≤ 3.0  
 Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes  No X

% Bare Ground in Herb Stratum 0 % Cover of Biotic Crust

Remarks: (Include photo numbers here or on a separate sheet.)  
 Some species are more or less apparent at this point of the growing season. Most grasses are not flowering.



**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 12	10YR 3.0 / 2	100		70	RM	M	LOAM	
12 to 14	10YR 3.0 / 2	95					SILTY CLAY LOAM	
14 to 20	10YR 7.0 / 3	85	10YR 4/2	15	C	M	CLAY LOAM	
14 to 14	10YR 7.0 / 2	4	10YR 6/8	1	C	PL	SILTY CLAY LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)           |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)       |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)   |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)   |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input type="checkbox"/> Depleted Matrix (F3)       |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)     |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)          |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |   |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)  
☐ 2 cm Muck (A10) (LRR B)  
☐ Reduced Vertic (F18)  
☐ Red Parent Material (TF2)  
☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No X**Remarks:**

Soil profile does not meet hydric criteria. Evidence of wet condition deeper in soil, below 14 inches.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)  
☐ Sediment Deposits (B2) (Riverine)  
☐ Drift Deposits (B3) (Riverine)  
☐ Drainage Patterns (B10)  
☐ Dry-Season Water Table (C2)  
☐ Crayfish Burrows (C8)  
☐ Saturation Visible on Aerial Imag.(C9)  
☐ Shallow Aquitard (D3)  
☐ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present?	Yes _____ No <u>X</u>	Depth (inches): _____
Water Table Present?	Yes _____ No <u>X</u>	Depth (inches): _____
Saturation Present?	Yes _____ No <u>X</u>	Depth (inches): _____

(includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

**Remarks:**

Dry with no apparent hydrology indicators.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 5/17/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: \_\_\_\_\_ Sampling Point: 05-N-201205170922  
 Investigators: Trent Toler Section, Township, Range S 30 T 5 R 2  
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): None Slope(%) 1  
 Subregion (LRR): LRR D Lat: 41.136286308 Long: -112.104778468 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Harrisville-Leland complex, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes \_\_\_\_\_ No X  
 Are Vegetation \_\_\_\_\_, Soil X, Hydrology \_\_\_\_\_, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> <b>Wetland ID:</b> _____
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes _____ No <u>X</u>	

Remarks:  
 Mesic edge towards pond wetlands. Irrigation overflow apparently sustains vegetation. Soils only meet test indicator (TF2).

## VEGETATION - Use scientific names of plants.

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
Juncus arcticus	50	Y	FACW
Carex nebrascensis	20	Y	OBL
Carex praegracilis	20	Y	FACW
Poa pratensis	10	N	FAC
Descurainia pinnata	2	N	UPL
Atriplex micrantha	1	N	UPL
	103	=Total Cover	

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 3 (A)  
 Total Number of Dominant Species Across all Strata: 3 (B)  
 Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>20</u>	x 1 = <u>20</u>
FACW species <u>70</u>	x 2 = <u>140</u>
FAC species <u>10</u>	x 3 = <u>30</u>
FACU species <u>0</u>	x 4 = <u>0</u>
UPL species <u>3</u>	x 5 = <u>15</u>
Column Totals: <u>103</u> (A)	<u>205</u> (B)
Prevalence Index = B/A = <u>1.99</u>	

### Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
 Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No \_\_\_\_\_

% Bare Ground in Herb Stratum 0 % Cover of Biotic Crust

Remarks: (Include photo numbers here or on a separate sheet.)  
 Mostly wetland vegetation, but becomes less vigorous upslope from pond edge.

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix			Redox Features				Texture	Remarks
	Color (moist)		%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 5	10YR	2.0 / 2	100					LOAM	
5 to 14	2.5YR	5.0 / 6	80	7.5YR 5/8	2	C	PL	SILTY CLAY	
5 to 14	2.5YR	6.0 / 1	18					SANDY CLAY	
14 to 18	2.5Y	6.0 / 2	60					SAND	
14 to 18	2.5YR	5.0 / 6	40					SILTY CLAY	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) LRR C
- ☐ 1 cm Muck (A9) LRR F D
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

Indicators for Problematic Hydric Soils: <sup>3</sup>

- ☐ 1 cm Muck (A9) (LRR C)
- ☐ 2 cm Muck (A10) (LRR B)
- ☐ Reduced Vertic (F18)
- ☒ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ Restrictive Layer (if observed):

Type:   
Depth (inches):

Hydric Soil Present? Yes X No     

Remarks:  
Red clay below dark organic layer, mixed with light grey sandy clay.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)			Secondary Indicators (minimum of two required)	
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) (Riverine)		
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)		
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)		
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)		
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)		
<input type="checkbox"/> Drift Deposits (B3) (Nonriverine)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Crayfish Burrows (C8)		
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imag.(C9)		
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)		
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input checked="" type="checkbox"/> FAC-Neutral Test (D5)		

Field Observations:

Surface Water Present?

Yes      No X

Depth (inches):

Water Table Present?

Yes      No X

Depth (inches):

Saturation Present?

Yes      No X

Depth (inches):

(includes capillary fringe)

Wetland Hydrology Present? Yes      No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:  
Area appears to be irrigation confounding (pond overflow suspected). No evidence of shallow groundwater table.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 5/17/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: \_\_\_\_\_ Sampling Point: 05-N-201205171151  
 Investigators: Trent Toler Section, Township, Range S 30 T 5 R 2  
 Landform (hillslope, terrace, etc.): Basin Local Relief (concave, convex, none): None Slope(%) 5  
 Subregion (LRR): LRR D Lat: 41.136295295 Long: -112.104171246 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Harrisville-Leland complex, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> Wetland ID: _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	

Remarks:  
 Irrigated pasture with FACW and FAC vegetation; does not contain hydric soils or evidence of wetland hydrology.

<b>VEGETATION</b> - Use scientific names of plants. <u>Tree Stratum</u> <u>Shrub Stratum</u> <u>Herb Stratum</u> (Plot size: <u>30 Ft</u> ) <table border="1"> <thead> <tr> <th></th> <th><u>Absolute % Cover</u></th> <th><u>Dominant Species</u></th> <th><u>Indicator Status</u></th> </tr> </thead> <tbody> <tr> <td>Carex praegracilis</td> <td>30</td> <td>Y</td> <td>FACW</td> </tr> <tr> <td>Juncus arcticus</td> <td>30</td> <td>Y</td> <td>FACW</td> </tr> <tr> <td>Distichlis spicata</td> <td>15</td> <td>N</td> <td>FAC</td> </tr> <tr> <td>Festuca pratensis</td> <td>15</td> <td>N</td> <td>FACU</td> </tr> <tr> <td>Poa pratensis</td> <td>10</td> <td>N</td> <td>FAC</td> </tr> <tr> <td></td> <td>100</td> <td colspan="2">=Total Cover</td> </tr> </tbody> </table> <u>Vine Stratum</u>		<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>	Carex praegracilis	30	Y	FACW	Juncus arcticus	30	Y	FACW	Distichlis spicata	15	N	FAC	Festuca pratensis	15	N	FACU	Poa pratensis	10	N	FAC		100	=Total Cover		<b>Dominance Test Worksheet:</b> Number of Dominant Species That are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across all Strata: <u>2</u> (B) Percent of Dominant Species That are OBL, FACW, or FAC: <u>100.0%</u> (A/B)  <b>Prevalence Index Worksheet:</b> <table border="1"> <thead> <tr> <th>Total % Cover of:</th> <th>Multiply by:</th> </tr> </thead> <tbody> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>60</u></td> <td>x 2 = <u>120</u></td> </tr> <tr> <td>FAC species <u>25</u></td> <td>x 3 = <u>75</u></td> </tr> <tr> <td>FACU species <u>15</u></td> <td>x 4 = <u>60</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>100</u> (A)</td> <td><u>255</u> (B)</td> </tr> </tbody> </table> <i>Prevalence Index = B/A =</i> <u>2.55</u>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>60</u>	x 2 = <u>120</u>	FAC species <u>25</u>	x 3 = <u>75</u>	FACU species <u>15</u>	x 4 = <u>60</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>100</u> (A)	<u>255</u> (B)
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% Bare Ground in Herb Stratum 0 % Cover of Biotic Crust 0

**Hydrophytic Vegetation Indicators:**  
   Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
   Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
   Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No \_\_\_\_\_

Remarks: (Include photo numbers here or on a separate sheet.)  
 Mix of pasture grasses and wetland vegetation.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)**

Depth (inches)	Matrix			Redox Features				Texture	Remarks
	Color (moist)		%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 6	10YR	4.0 / 2	100					SANDY CLAY LOAM	
6 to 7	10YR	5.0 / 3	100					SAND	
7 to 13	10YR	4.0 / 2	100					SANDY CLAY LOAM	
13 to 16	7.5YR	5.0 / 4	100					SANDY CLAY	
16 to 19	7.5YR	5.0 / 4	95	7.5YR5/4	5	C	PL	SANDY CLAY	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)           |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)       |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)   |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)   |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input type="checkbox"/> Depleted Matrix (F3)       |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)     |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)          |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |   |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- |   |
|---|
| <input type="checkbox"/> 1 cm Muck (A9) (LRR C)     |
| <input type="checkbox"/> 2 cm Muck (A10) (LRR B)    |
| <input type="checkbox"/> Reduced Vertic (F18)       |
| <input type="checkbox"/> Red Parent Material (TF2)  |
| <input type="checkbox"/> Other (Explain in Remarks) |

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No X

## Remarks:

No hydric indicators observed in soil profile.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- |   |
|---|
| <input type="checkbox"/> Water Marks (B1) (Riverine)            |
| <input type="checkbox"/> Sediment Deposits (B2) (Riverine)      |
| <input type="checkbox"/> Drift Deposits (B3) (Riverine)         |
| <input type="checkbox"/> Drainage Patterns (B10)                |
| <input type="checkbox"/> Dry-Season Water Table (C2)            |
| <input type="checkbox"/> Crayfish Burrows (C8)                  |
| <input type="checkbox"/> Saturation Visible on Aerial Imag.(C9) |
| <input type="checkbox"/> Shallow Aquitard (D3)                  |
| <input checked="" type="checkbox"/> FAC-Neutral Test (D5)       |

**Field Observations:**

Surface Water Present?	Yes _____ No <u>X</u>	Depth (inches): _____
Water Table Present?	Yes _____ No <u>X</u>	Depth (inches): _____
Saturation Present?	Yes _____ No <u>X</u>	Depth (inches): _____

(includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

Soils currently dry but close to a feeder ditch with water in it.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 5/17/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: \_\_\_\_\_ Sampling Point: 05-N-201205171409  
 Investigators: Trent Toler Section, Township, Range S 30 T 5 R 2  
 Landform (hillslope, terrace, etc.): Hill Slope Local Relief (concave, convex, none): None Slope(%) 10  
 Subregion (LRR): LRR D Lat: 41.138458679 Long: -112.104278421 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Harrisville-Leland complex, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland?	Yes _____ No <u>X</u>
Hydric Soil Present?	Yes _____ No <u>X</u>		
Wetland Hydrology Present?	Yes _____ No <u>X</u>		Wetland ID: _____

Remarks:  
 Dry upland area.

## VEGETATION— Use scientific names of plants.

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
Hordeum pusillum	40	Y	FACU
Distichlis spicata	20	Y	FAC
Bromus tectorum	10	N	UPL
Elymus repens	10	N	FAC
Medicago sativa	10	N	UPL
Atriplex micrantha	5	N	UPL
Festuca pratensis	4	N	FACU
Taraxacum officinale	3	N	FACU
Tragopogon dubius	3	N	UPL
	105	=Total Cover	

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species  
That are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant  
Species Across all Strata: 2 (B)

Percent of Dominant Species  
That are OBL, FACW, or FAC: 50.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>0</u>	x 2 = <u>0</u>
FAC species <u>30</u>	x 3 = <u>90</u>
FACU species <u>47</u>	x 4 = <u>188</u>
UPL species <u>28</u>	x 5 = <u>140</u>
Column Totals: <u>105</u> (A)	<u>418</u> (B)

Prevalence Index = B/A = 3.98

### Hydrophytic Vegetation Indicators:

\_\_\_\_ Rapid Test for Hydrophytic Vegetation  
 \_\_\_\_ Dominance Test > 50%  
 \_\_\_\_ Prevalence Index ≤ 3.0  
 \_\_\_\_ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 \_\_\_\_ Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic  
Vegetation Present?** Yes \_\_\_\_\_ No X

% Bare Ground in Herb Stratum 10 % Cover of Biotic Crust

Remarks: (Include photo numbers here or on a separate sheet.)  
 Vegetation is not hydrophytic.



**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 1	7.5YR 3.0 / 2	100					SILTY CLAY LOAM	organic root mat
1 to 14	10YR 4.0 / 3	100					SILTY CLAY	
14 to 18	10YR 6.0 / 3	100					SILTY CLAY	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)           |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)       |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)   |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)   |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input type="checkbox"/> Depleted Matrix (F3)       |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)     |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)          |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |   |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)  
☐ 2 cm Muck (A10) (LRR B)  
☐ Reduced Vertic (F18)  
☐ Red Parent Material (TF2)  
☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No X

## Remarks:

Soil profile does not meet criteria for hydric indicators.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)  
☐ Sediment Deposits (B2) (Riverine)  
☐ Drift Deposits (B3) (Riverine)  
☐ Drainage Patterns (B10)  
☐ Dry-Season Water Table (C2)  
☐ Crayfish Burrows (C8)  
☐ Saturation Visible on Aerial Imag.(C9)  
☐ Shallow Aquitard (D3)  
☐ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present?	Yes _____ No <u>X</u>	Depth (inches): _____
Water Table Present?	Yes _____ No <u>X</u>	Depth (inches): _____
Saturation Present?	Yes _____ No <u>X</u>	Depth (inches): _____

(includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

Very dry with no hydrology indicators.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 5/22/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: \_\_\_\_\_ Sampling Point: 05-N-201205221430  
 Investigators: Donovan Gross Nate Nichols Section, Township, Range S 30 T 5 R 2  
 Landform (hillslope, terrace, etc.): Basin Local Relief (concave, convex, none): Concave Slope(%) 5  
 Subregion (LRR): LRR C Lat: 41.1366448689 Long: -112.109823125 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Harrisville-Leland complex, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil X, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes \_\_\_\_\_ No X  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u>  <b>Wetland ID:</b> _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	

Remarks:  
 Shovel resistance at 2 inches (fill material). Upland data point in imported and compacted berm fill area surrounding wetland.

<b>VEGETATION</b> — Use scientific names of plants. <u>Tree Stratum</u> <u>Shrub Stratum</u> <u>Herb Stratum</u> (Plot size: <u>30 Ft</u> ) <table border="1"> <thead> <tr> <th></th> <th><u>Absolute % Cover</u></th> <th><u>Dominant Species</u></th> <th><u>Indicator Status</u></th> </tr> </thead> <tbody> <tr> <td>Bromus tectorum</td> <td>30</td> <td>Y</td> <td>UPL</td> </tr> <tr> <td>Thinopyrum ponticum</td> <td>20</td> <td>Y</td> <td>UPL</td> </tr> <tr> <td>Melilotus officinalis</td> <td>15</td> <td>Y</td> <td>FACU</td> </tr> <tr> <td></td> <td>65</td> <td colspan="2">=Total Cover</td> </tr> </tbody> </table> <u>Vine Stratum</u>		<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>	Bromus tectorum	30	Y	UPL	Thinopyrum ponticum	20	Y	UPL	Melilotus officinalis	15	Y	FACU		65	=Total Cover		<b>Dominance Test Worksheet:</b> Number of Dominant Species That are OBL, FACW, or FAC: <u>0</u> (A)  Total Number of Dominant Species Across all Strata: <u>3</u> (B)  Percent of Dominant Species That are OBL, FACW, or FAC: <u>0.0%</u> (A/B)								
	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>																										
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Total % Cover of:		Multiply by:																											
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	<b>Hydrophytic Vegetation Indicators:</b> <u>      </u> Rapid Test for Hydrophytic Vegetation <u>      </u> Dominance Test > 50% <u>      </u> Prevalence Index ≤ 3.0 <u>      </u> Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet) <u>      </u> Problematic Hydrophytic Vegetation (Explain) Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																												
% Bare Ground in Herb Stratum <u>25</u> % Cover of Biotic Crust _____	<b>Hydrophytic Vegetation Present?</b> Yes _____ No <u>X</u>																												

Remarks: (Include photo numbers here or on a separate sheet.)  
 Upland berm.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- ☐ Histosol (A1)  
☐ Histic Epipedon (A2)  
☐ Black Histic (A3)  
☐ Hydrogen Sulfide (A4)  
☐ Stratified Layers (A5) LRR C  
☐ 1 cm Muck (A9) LRR F D  
☐ Depleted Below Dark Surface (A11)  
☐ Thick Dark Surface (A12)  
☐ Sandy Mucky Mineral (S1)  
☐ Sandy Gleyed Matrix (S4)

- ☐ Sandy Redox (S5)  
☐ Stripped Matrix (S6)  
☐ Loamy Mucky Mineral (F1)  
☐ Loamy Gleyed Matrix (F2)  
☐ Depleted Matrix (F3)  
☐ Redox Dark Surface (F6)  
☐ Depleted Dark Surface (F7)  
☐ Redox Depressions (F8)  
☐ Vernal Pools (F9)

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)  
☐ 2 cm Muck (A10) (LRR B)  
☐ Reduced Vertic (F18)  
☐ Red Parent Material (TF2)  
☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No X
**Remarks:**

Very compact fill material, shovel resistance at 2 in., no soil profile.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)  
☐ High Water Table (A2)  
☐ Saturation (A3)  
☐ Water Marks (B1) (Nonriverine)  
☐ Sediment Deposits (B2) (Nonriverine)  
☐ Drift Deposits (B3) (Nonriverine)  
☐ Surface Soil Cracks (B6)  
☐ Inundation Visible on Aerial Imagery (B7)  
☐ Water-Stained Leaves (B9)  
☐ Salt Crust (B11)  
☐ Biotic Crust (B12)  
☐ Aquatic Fauna (B13)  
☐ Hydrogen Sulfide Odor (C1)  
☐ Oxidized Rhizospheres along Living Roots (C3)  
☐ Presence of Reduced Iron (C4)  
☐ Recent Iron Reduction in Tilled Soils (C6)  
☐ Thin Muck Surface (C7)  
☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)  
☐ Sediment Deposits (B2) (Riverine)  
☐ Drift Deposits (B3) (Riverine)  
☐ Drainage Patterns (B10)  
☐ Dry-Season Water Table (C2)  
☐ Crayfish Burrows (C8)  
☐ Saturation Visible on Aerial Imag.(C9)  
☐ Shallow Aquitard (D3)  
☐ FAC-Neutral Test (D5)

**Field Observations:**Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Water Table Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Saturation Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_

(includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

**Remarks:**

Dry and compact fill, no wetland hydrology.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 5/7/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: \_\_\_\_\_ Sampling Point: 05-N-201209131331  
 Investigators: Mike Perkins Section, Township, Range S 30 T 5 R 2  
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): Concave Slope(%) 0  
 Subregion (LRR): LRR D Lat: 41.1341876472 Long: -112.111175486 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Harrisville-Leland complex, 0 to 1 percent slopes NWI Classification: \_\_\_\_\_  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes \_\_\_\_\_ No X  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology X, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> Wetland ID: _____
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	

### Remarks:

Small depression in very heavily goat-grazed pasture is not a wetland.

### VEGETATION— Use scientific names of plants.

#### Tree Stratum

#### Shrub Stratum

#### Herb Stratum (Plot size: 30 Ft )

	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
Juncus arcticus	60	Y	FACW
Hordeum pusillum	30	Y	FACU
	90	=Total Cover	

#### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 1 (A)  
 Total Number of Dominant Species Across all Strata: 2 (B)  
 Percent of Dominant Species That are OBL, FACW, or FAC: 50.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>60</u>	x 2 = <u>120</u>
FAC species <u>0</u>	x 3 = <u>0</u>
FACU species <u>30</u>	x 4 = <u>120</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>90</u> (A)	<u>240</u> (B)
Prevalence Index = B/A= <u>2.67</u>	

### Hydrophytic Vegetation Indicators:

\_\_\_\_ Rapid Test for Hydrophytic Vegetation  
 \_\_\_\_ Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
 \_\_\_\_ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 \_\_\_\_ Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No \_\_\_\_\_

% Bare Ground in Herb Stratum 15 % Cover of Biotic Crust \_\_\_\_\_

### Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation might be inaccurate due to being heavily grazed and dried out; does appears to be hydrophytic but very borderline. Other species may no longer be apparent given the time of year.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 12	10YR	4 / 3		100			LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- ☐ Histosol (A1)  
☐ Histic Epipedon (A2)  
☐ Black Histic (A3)  
☐ Hydrogen Sulfide (A4)  
☐ Stratified Layers (A5) LRR C  
☐ 1 cm Muck (A9) LRR F D  
☐ Depleted Below Dark Surface (A11)  
☐ Thick Dark Surface (A12)  
☐ Sandy Mucky Mineral (S1)  
☐ Sandy Gleyed Matrix (S4)

- ☐ Sandy Redox (S5)  
☐ Stripped Matrix (S6)  
☐ Loamy Mucky Mineral (F1)  
☐ Loamy Gleyed Matrix (F2)  
☐ Depleted Matrix (F3)  
☐ Redox Dark Surface (F6)  
☐ Depleted Dark Surface (F7)  
☐ Redox Depressions (F8)  
☐ Vernal Pools (F9)

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)  
☐ 2 cm Muck (A10) (LRR B)  
☐ Reduced Vertic (F18)  
☐ Red Parent Material (TF2)  
☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No X**Remarks:**

Soil very hard and dry; shovel resistance at 12 inches. Soil profile does not meet criteria for hydric indicators.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)  
☐ High Water Table (A2)  
☐ Saturation (A3)  
☐ Water Marks (B1) (Nonriverine)  
☐ Sediment Deposits (B2) (Nonriverine)  
☐ Drift Deposits (B3) (Nonriverine)  
☐ Surface Soil Cracks (B6)  
☐ Inundation Visible on Aerial Imagery (B7)  
☐ Water-Stained Leaves (B9)  
☐ Salt Crust (B11)  
☐ Biotic Crust (B12)  
☐ Aquatic Fauna (B13)  
☐ Hydrogen Sulfide Odor (C1)  
☐ Oxidized Rhizospheres along Living Roots (C3)  
☐ Presence of Reduced Iron (C4)  
☐ Recent Iron Reduction in Tilled Soils (C6)  
☐ Thin Muck Surface (C7)  
☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)  
☐ Sediment Deposits (B2) (Riverine)  
☐ Drift Deposits (B3) (Riverine)  
☐ Drainage Patterns (B10)  
☐ Dry-Season Water Table (C2)  
☐ Crayfish Burrows (C8)  
☐ Saturation Visible on Aerial Imag.(C9)  
☐ Shallow Aquitard (D3)  
☒ FAC-Neutral Test (D5)

**Field Observations:**Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Water Table Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Saturation Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_

(includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

**Remarks:**

Dry area lacks evidence for wetland hydrology, but during dry time of year.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 5/14/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: \_\_\_\_\_ Sampling Point: 05-W-201205141156  
 Investigators: Mike Perkins Nate Nichols Section, Township, Range S 30 T 5 R 2  
 Landform (hillslope, terrace, etc.): Basin Local Relief (concave, convex, none): Concave Slope(%) 1  
 Subregion (LRR): LRR D Lat: 41.1395789461 Long: -112.108225497 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Harrisville-Leland complex, 0 to 1 percent slopes NWI Classification: PEMA  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____  <b>Wetland ID:</b> <u>05-W-71</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks:  
 Emergent marsh wetland, currently inundated, part of a very large marsh area.

## VEGETATION— Use scientific names of plants.

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
Schoenoplectus pungens	70	Y	OBL
Juncus arcticus	40	Y	FACW
Typha latifolia	35	Y	OBL
Carex praegracilis	5	N	FACW
Distichlis spicata	5	N	FAC
	155	=Total Cover	

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 3 (A)  
  
 Total Number of Dominant Species Across all Strata: 3 (B)  
  
 Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>105</u>	x 1 = <u>105</u>
FACW species <u>45</u>	x 2 = <u>90</u>
FAC species <u>5</u>	x 3 = <u>15</u>
FACU species <u>0</u>	x 4 = <u>0</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>155</u> (A)	<u>210</u> (B)
Prevalence Index = B/A = <u>1.35</u>	

### Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
 Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No \_\_\_\_\_

% Bare Ground in Herb Stratum 40 % Cover of Biotic Crust \_\_\_\_\_

Remarks: (Include photo numbers here or on a separate sheet.)

Mostly dominated by tall emergent vegetation.



**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 3	10YR	2.0 / 2	100					organic root mat
3 to 7	10YR	5.0 / 2	100				SANDY CLAY LOAM	
7 to 16	10YR	4.0 / 2	100				SANDY CLAY LOAM	
16 to 20	10YR	5.0 / 3	100				SILTY CLAY LOAM	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)           |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)       |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)   |
| <input checked="" type="checkbox"/> Hydrogen Sulfide (A4)  | <input type="checkbox"/> Loamy Gleyed Matrix (F2)   |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input type="checkbox"/> Depleted Matrix (F3)       |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)     |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)          |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |   |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)  
☐ 2 cm Muck (A10) (LRR B)  
☐ Reduced Vertic (F18)  
☐ Red Parent Material (TF2)  
☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes X No \_\_\_\_\_

## Remarks:

Because of odor, soil is hydric based on A4 indicator.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input checked="" type="checkbox"/> Surface Water (A1)             | <input type="checkbox"/> Salt Crust (B11)                              |
| <input checked="" type="checkbox"/> High Water Table (A2)          | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input checked="" type="checkbox"/> Saturation (A3)                | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input checked="" type="checkbox"/> Hydrogen Sulfide Odor (C1)         |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)  
☐ Sediment Deposits (B2) (Riverine)  
☐ Drift Deposits (B3) (Riverine)  
☐ Drainage Patterns (B10)  
☐ Dry-Season Water Table (C2)  
☐ Crayfish Burrows (C8)  
☐ Saturation Visible on Aerial Imag.(C9)  
☐ Shallow Aquitard (D3)  
☒ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present?	Yes	<u>X</u>	No	_____	Depth (inches):	<u>2</u>
Water Table Present?	Yes	<u>X</u>	No	_____	Depth (inches):	<u>0</u>
Saturation Present?	Yes	<u>X</u>	No	_____	Depth (inches):	<u>0</u>

(includes capillary fringe)

**Wetland Hydrology Present?** Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

Site is inundated and thoroughly saturated.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 5/15/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: \_\_\_\_\_ Sampling Point: 05-W-201205150903  
 Investigators: Mike Perkins Trent Toler Section, Township, Range S 30 T 5 R 2  
 Landform (hillslope, terrace, etc.): basin Local Relief (concave, convex, none): Concave Slope(%) 2  
 Subregion (LRR): LRR D Lat: 41.1336204377 Long: -112.107655106 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Harrisville-Leland complex, 0 to 1 percent slopes NWI Classification: PEMC  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ <b>Wetland ID:</b> <u>05-W-32</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks:  
 South end of a large, emergent marsh area.

<b>VEGETATION</b> — Use scientific names of plants. <u>Tree Stratum</u> <u>Shrub Stratum</u> <u>Herb Stratum</u> (Plot size: <u>30 Ft</u> ) <table border="1"> <thead> <tr> <th></th> <th><u>Absolute % Cover</u></th> <th><u>Dominant Species</u></th> <th><u>Indicator Status</u></th> </tr> </thead> <tbody> <tr> <td><u>Eleocharis palustris</u></td> <td><u>35</u></td> <td><u>Y</u></td> <td><u>OBL</u></td> </tr> <tr> <td><u>Carex nebrascensis</u></td> <td><u>25</u></td> <td><u>Y</u></td> <td><u>OBL</u></td> </tr> <tr> <td><u>Schoenoplectus acutus</u></td> <td><u>20</u></td> <td><u>N</u></td> <td><u>OBL</u></td> </tr> <tr> <td><u>Typha latifolia</u></td> <td><u>20</u></td> <td><u>N</u></td> <td><u>OBL</u></td> </tr> <tr> <td><u>Juncus arcticus</u></td> <td><u>5</u></td> <td><u>N</u></td> <td><u>FACW</u></td> </tr> <tr> <td></td> <td><u>105</u></td> <td colspan="2"><u>=Total Cover</u></td> </tr> </tbody> </table> <u>Vine Stratum</u>		<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>	<u>Eleocharis palustris</u>	<u>35</u>	<u>Y</u>	<u>OBL</u>	<u>Carex nebrascensis</u>	<u>25</u>	<u>Y</u>	<u>OBL</u>	<u>Schoenoplectus acutus</u>	<u>20</u>	<u>N</u>	<u>OBL</u>	<u>Typha latifolia</u>	<u>20</u>	<u>N</u>	<u>OBL</u>	<u>Juncus arcticus</u>	<u>5</u>	<u>N</u>	<u>FACW</u>		<u>105</u>	<u>=Total Cover</u>		<b>Dominance Test Worksheet:</b> Number of Dominant Species That are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across all Strata: <u>2</u> (B) Percent of Dominant Species That are OBL, FACW, or FAC: <u>100.0%</u> (A/B)  <b>Prevalence Index Worksheet:</b> <table border="1"> <thead> <tr> <th>Total % Cover of:</th> <th>Multiply by:</th> </tr> </thead> <tbody> <tr> <td>OBL species <u>100</u></td> <td>x 1 = <u>100</u></td> </tr> <tr> <td>FACW species <u>5</u></td> <td>x 2 = <u>10</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>0</u></td> <td>x 4 = <u>0</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>105</u> (A)</td> <td><u>110</u> (B)</td> </tr> </tbody> </table> <i>Prevalence Index = B/A =</i> <u>1.05</u>	Total % Cover of:	Multiply by:	OBL species <u>100</u>	x 1 = <u>100</u>	FACW species <u>5</u>	x 2 = <u>10</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>0</u>	x 4 = <u>0</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>105</u> (A)	<u>110</u> (B)
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Column Totals: <u>105</u> (A)	<u>110</u> (B)																																										

% Bare Ground in Herb Stratum 5

% Cover of Biotic Crust \_\_\_\_\_

Remarks: (Include photo numbers here or on a separate sheet.)  
 Emergent marsh plant community.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 5	10YR	2.0 / 2	100					Organic root mat
5 to 9	10YR	5.0 / 2	100				CLAY	
9 to 18	10YR	6.0 / 2	60	Gley2 5/10B	40	C	M	SILTY CLAY

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |   |  |
|---|--|
| <input type="checkbox"/> Histosol (A1)                                | <input type="checkbox"/> Sandy Redox (S5)                |
| <input type="checkbox"/> Histic Epipedon (A2)                         | <input type="checkbox"/> Stripped Matrix (S6)            |
| <input type="checkbox"/> Black Histic (A3)                            | <input type="checkbox"/> Loamy Mucky Mineral (F1)        |
| <input type="checkbox"/> Hydrogen Sulfide (A4)                        | <input type="checkbox"/> Loamy Gleyed Matrix (F2)        |
| <input type="checkbox"/> Stratified Layers (A5) LRR C                 | <input checked="" type="checkbox"/> Depleted Matrix (F3) |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D                       | <input type="checkbox"/> Redox Dark Surface (F6)         |
| <input checked="" type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7)      |
| <input type="checkbox"/> Thick Dark Surface (A12)                     | <input type="checkbox"/> Redox Depressions (F8)          |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)                     | <input type="checkbox"/> Vernal Pools (F9)               |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)                     |  |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- |   |
|---|
| <input type="checkbox"/> 1 cm Muck (A9) (LRR C)     |
| <input type="checkbox"/> 2 cm Muck (A10) (LRR B)    |
| <input type="checkbox"/> Reduced Vertic (F18)       |
| <input type="checkbox"/> Red Parent Material (TF2)  |
| <input type="checkbox"/> Other (Explain in Remarks) |

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.☐ **Restrictive Layer (if observed):**Type: \_\_\_\_\_  
Depth (inches): \_\_\_\_\_**Hydric Soil Present?** Yes X No \_\_\_\_\_

## Remarks:

Soils meet the F3 and A11 hydric indicators.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input checked="" type="checkbox"/> High Water Table (A2)          | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input checked="" type="checkbox"/> Saturation (A3)                | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- |   |
|---|
| <input type="checkbox"/> Water Marks (B1) (Riverine)            |
| <input type="checkbox"/> Sediment Deposits (B2) (Riverine)      |
| <input type="checkbox"/> Drift Deposits (B3) (Riverine)         |
| <input type="checkbox"/> Drainage Patterns (B10)                |
| <input type="checkbox"/> Dry-Season Water Table (C2)            |
| <input type="checkbox"/> Crayfish Burrows (C8)                  |
| <input type="checkbox"/> Saturation Visible on Aerial Imag.(C9) |
| <input type="checkbox"/> Shallow Aquitard (D3)                  |
| <input checked="" type="checkbox"/> FAC-Neutral Test (D5)       |

**Field Observations:**

Surface Water Present?	Yes	____	No	<u>X</u>	Depth (inches):	____	--
Water Table Present?	Yes	<u>X</u>	No	____	Depth (inches):	____	11
Saturation Present?	Yes	<u>X</u>	No	____	Depth (inches):	____	0

(includes capillary fringe)

**Wetland Hydrology Present?** Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

Saturation at the surface. Water table was measured at 11 inches as pit was still slowly filling in with water.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 5/15/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: \_\_\_\_\_ Sampling Point: 05-W-201205151511  
 Investigators: Mike Perkins Trent Toler Section, Township, Range S 30 T 5 R 2  
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): Concave Slope(%) 1  
 Subregion (LRR): LRR D Lat: 41.1356391761 Long: -112.106557826 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Harrisville-Leland complex, 0 to 1 percent slopes NWI Classification: PEMC  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ Wetland ID: <u>05-W-71</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	

### Remarks:

Although this area may be heavily influenced by irrigation, this sample point meets wetland criteria.

### VEGETATION— Use scientific names of plants.

#### Tree Stratum

#### Shrub Stratum

#### Herb Stratum (Plot size: 30 Ft )

	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
Carex nebrascensis	40	Y	OBL
Juncus arcticus	30	Y	FACW
Distichlis spicata	25	Y	FAC
	95	=Total Cover	

#### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 3 (A)  
 Total Number of Dominant Species Across all Strata: 3 (B)  
 Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>40</u>	x 1 = <u>40</u>
FACW species <u>30</u>	x 2 = <u>60</u>
FAC species <u>25</u>	x 3 = <u>75</u>
FACU species <u>0</u>	x 4 = <u>0</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>95</u> (A)	<u>175</u> (B)
Prevalence Index = B/A= <u>1.84</u>	

### Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
 Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No \_\_\_\_\_

% Bare Ground in Herb Stratum 5 % Cover of Biotic Crust \_\_\_\_\_

Remarks: (Include photo numbers here or on a separate sheet.)

Wet meadow plant community.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)**

Depth (inches)	Matrix			Redox Features				Texture	Remarks
	Color (moist)		%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 4	10YR	3.0 / 2	100					SANDY CLAY LOAM	Organic root mat
4 to 6	10YR	5.0 / 3	95	10YR2/1	5	C	M	FINE SAND	
6 to 13	10YR	4.0 / 2	90	10YR2/1	5	C	M	SANDY LOAM	also: 10YR 4/3 2%
13 to 20	10YR	5.0 / 2	95	10YR2/1	2	C	M	SILTY CLAY	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- ☐ Histosol (A1)  
☐ Histic Epipedon (A2)  
☐ Black Histic (A3)  
☐ Hydrogen Sulfide (A4)  
☐ Stratified Layers (A5) LRR C  
☐ 1 cm Muck (A9) LRR F D  
☐ Depleted Below Dark Surface (A11)  
☐ Thick Dark Surface (A12)  
☐ Sandy Mucky Mineral (S1)  
☐ Sandy Gleyed Matrix (S4)  
☐ Sandy Redox (S5)  
☐ Stripped Matrix (S6)  
☐ Loamy Mucky Mineral (F1)  
☐ Loamy Gleyed Matrix (F2)  
☒ Depleted Matrix (F3)  
☐ Redox Dark Surface (F6)  
☐ Depleted Dark Surface (F7)  
☐ Redox Depressions (F8)  
☐ Vernal Pools (F9)

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)  
☐ 2 cm Muck (A10) (LRR B)  
☐ Reduced Vertic (F18)  
☐ Red Parent Material (TF2)  
☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes X No \_\_\_\_\_

## Remarks:

Appears to fit F3 hydric soil indicator.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)  
☐ High Water Table (A2)  
☐ Saturation (A3)  
☐ Water Marks (B1) (Nonriverine)  
☐ Sediment Deposits (B2) (Nonriverine)  
☐ Drift Deposits (B3) (Nonriverine)  
☐ Surface Soil Cracks (B6)  
☐ Inundation Visible on Aerial Imagery (B7)  
☐ Water-Stained Leaves (B9)  
☐ Salt Crust (B11)  
☐ Biotic Crust (B12)  
☐ Aquatic Fauna (B13)  
☐ Hydrogen Sulfide Odor (C1)  
☐ Oxidized Rhizospheres along Living Roots (C3)  
☐ Presence of Reduced Iron (C4)  
☐ Recent Iron Reduction in Tilled Soils (C6)  
☐ Thin Muck Surface (C7)  
☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)  
☐ Sediment Deposits (B2) (Riverine)  
☐ Drift Deposits (B3) (Riverine)  
☒ Drainage Patterns (B10)  
☐ Dry-Season Water Table (C2)  
☐ Crayfish Burrows (C8)  
☐ Saturation Visible on Aerial Imag.(C9)  
☐ Shallow Aquitard (D3)  
☒ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_  
 Water Table Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_  
 Saturation Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_  
 (includes capillary fringe)

**Wetland Hydrology Present?** Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

This area is supplemented by irrigation. Wetland hydrology was observed only from secondary indicators of Drainage Patterns and FAC-Neutral Test.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 5/16/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: \_\_\_\_\_ Sampling Point: 05-W-201205161112  
 Investigators: Trent Toler Section, Township, Range S 30 T 5 R 2  
 Landform (hillslope, terrace, etc.): Flat Local Relief (concave, convex, none): Concave Slope(%) 1  
 Subregion (LRR): LRR D Lat: 41.1341724205 Long: -112.105084904 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Harrisville-Leland complex, 0 to 1 percent slopes NWI Classification: PEMA  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes \_\_\_\_\_ No X  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology X, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ Wetland ID: <u>05-IW-46</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	

### Remarks:

Site confounded by irrigation, hydrology likely supplied by surface irrigation.

### VEGETATION— Use scientific names of plants.

#### Tree Stratum

#### Shrub Stratum

#### Herb Stratum (Plot size: 30 Ft )

	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
Eleocharis palustris	30	Y	OBL
Schoenoplectus pungens	30	Y	OBL
Hordeum jubatum	15	N	FAC
Poa palustris	15	N	FAC
Phragmites australis	10	N	FACW
	100	=Total Cover	

#### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 2 (A)  
 Total Number of Dominant Species Across all Strata: 2 (B)  
 Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>60</u>	x 1 = <u>60</u>
FACW species <u>10</u>	x 2 = <u>20</u>
FAC species <u>30</u>	x 3 = <u>90</u>
FACU species <u>0</u>	x 4 = <u>0</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>100</u> (A)	<u>170</u> (B)
Prevalence Index = B/A = <u>1.70</u>	

### Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
 Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No \_\_\_\_\_

% Bare Ground in Herb Stratum 0 % Cover of Biotic Crust \_\_\_\_\_

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation is hydrophytic.



**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)**

Depth (inches)	Matrix			Redox Features				Texture	Remarks
	Color (moist)		%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
to	/								
0 to 10	10YR	3.0 / 2	100					SILTY CLAY LOAM	
10 to 14	10YR	7.0 / 2	70	10YR 4/2	30	D	M	SILTY CLAY LOAM	
14 to 19	10YR	7.0 / 2	100					SILTY CLAY	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |   |   |
|---|---|
| <input type="checkbox"/> Histosol (A1)                                | <input type="checkbox"/> Sandy Redox (S5)           |
| <input type="checkbox"/> Histic Epipedon (A2)                         | <input type="checkbox"/> Stripped Matrix (S6)       |
| <input type="checkbox"/> Black Histic (A3)                            | <input type="checkbox"/> Loamy Mucky Mineral (F1)   |
| <input type="checkbox"/> Hydrogen Sulfide (A4)                        | <input type="checkbox"/> Loamy Gleyed Matrix (F2)   |
| <input type="checkbox"/> Stratified Layers (A5) LRR C                 | <input type="checkbox"/> Depleted Matrix (F3)       |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D                       | <input type="checkbox"/> Redox Dark Surface (F6)    |
| <input checked="" type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12)                     | <input type="checkbox"/> Redox Depressions (F8)     |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)                     | <input type="checkbox"/> Vernal Pools (F9)          |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)                     |   |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- |   |
|---|
| <input type="checkbox"/> 1 cm Muck (A9) (LRR C)     |
| <input type="checkbox"/> 2 cm Muck (A10) (LRR B)    |
| <input type="checkbox"/> Reduced Vertic (F18)       |
| <input type="checkbox"/> Red Parent Material (TF2)  |
| <input type="checkbox"/> Other (Explain in Remarks) |

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes X No \_\_\_\_\_

## Remarks:

Soils fit hydric indicator A11.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input checked="" type="checkbox"/> Biotic Crust (B12)                 |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- |   |
|---|
| <input type="checkbox"/> Water Marks (B1) (Riverine)            |
| <input type="checkbox"/> Sediment Deposits (B2) (Riverine)      |
| <input type="checkbox"/> Drift Deposits (B3) (Riverine)         |
| <input type="checkbox"/> Drainage Patterns (B10)                |
| <input type="checkbox"/> Dry-Season Water Table (C2)            |
| <input type="checkbox"/> Crayfish Burrows (C8)                  |
| <input type="checkbox"/> Saturation Visible on Aerial Imag.(C9) |
| <input type="checkbox"/> Shallow Aquitard (D3)                  |
| <input checked="" type="checkbox"/> FAC-Neutral Test (D5)       |

**Field Observations:**Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Water Table Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_Saturation Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_

(includes capillary fringe)

**Wetland Hydrology Present?** Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

Thin algal mats on vegetation match biotic crust indicator. Area has been flooded but probably from irrigation ditch to east as swale connection to the ditch exists.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 5/16/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: \_\_\_\_\_ Sampling Point: 05-W-201205161340  
 Investigators: Trent Toler Section, Township, Range S 30 T 5 R 2  
 Landform (hillslope, terrace, etc.): Basin Local Relief (concave, convex, none): Concave Slope(%) 0  
 Subregion (LRR): LRR D Lat: 41.1351545503 Long: -112.105230819 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Harrisville-Leland complex, 0 to 1 percent slopes NWI Classification: PEMB  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ Wetland ID: <u>05-W-17</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks:  
 Emergent marsh in low spot, fed by irrigation with swales connecting.

<b>VEGETATION</b> — Use scientific names of plants. <u>Tree Stratum</u> <u>Shrub Stratum</u> <u>Herb Stratum</u> (Plot size: <u>30 Ft</u> ) <table border="1"> <tr><td>Typha latifolia</td><td>70</td><td>Y</td><td>OBL</td></tr> <tr><td>Eleocharis palustris</td><td>25</td><td>Y</td><td>OBL</td></tr> <tr><td>Schoenoplectus americanus</td><td>10</td><td>N</td><td>OBL</td></tr> <tr><td>Schoenoplectus pungens</td><td>7</td><td>N</td><td>OBL</td></tr> <tr><td>Phragmites australis</td><td>2</td><td>N</td><td>FACW</td></tr> <tr><td>Juncus torreyi</td><td>1</td><td>N</td><td>FACW</td></tr> <tr><td colspan="2">115 =Total Cover</td><td></td><td></td></tr> </table> <u>Vine Stratum</u>	Typha latifolia	70	Y	OBL	Eleocharis palustris	25	Y	OBL	Schoenoplectus americanus	10	N	OBL	Schoenoplectus pungens	7	N	OBL	Phragmites australis	2	N	FACW	Juncus torreyi	1	N	FACW	115 =Total Cover				<b>Dominance Test Worksheet:</b> Number of Dominant Species That are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across all Strata: <u>2</u> (B) Percent of Dominant Species That are OBL, FACW, or FAC: <u>100.0%</u> (A/B)  <b>Prevalence Index Worksheet:</b> <table border="1"> <tr> <th>Total % Cover of:</th> <th>Multiply by:</th> </tr> <tr><td>OBL species</td><td>112 x 1 = 112</td></tr> <tr><td>FACW species</td><td>3 x 2 = 6</td></tr> <tr><td>FAC species</td><td>0 x 3 = 0</td></tr> <tr><td>FACU species</td><td>0 x 4 = 0</td></tr> <tr><td>UPL species</td><td>0 x 5 = 0</td></tr> <tr><td>Column Totals:</td><td>115 (A) 118 (B)</td></tr> </table> <i>Prevalence Index = B/A= 1.03</i>	Total % Cover of:	Multiply by:	OBL species	112 x 1 = 112	FACW species	3 x 2 = 6	FAC species	0 x 3 = 0	FACU species	0 x 4 = 0	UPL species	0 x 5 = 0	Column Totals:	115 (A) 118 (B)
Typha latifolia	70	Y	OBL																																								
Eleocharis palustris	25	Y	OBL																																								
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Schoenoplectus pungens	7	N	OBL																																								
Phragmites australis	2	N	FACW																																								
Juncus torreyi	1	N	FACW																																								
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FACU species	0 x 4 = 0																																										
UPL species	0 x 5 = 0																																										
Column Totals:	115 (A) 118 (B)																																										

% Bare Ground in Herb Stratum 10 % Cover of Biotic Crust \_\_\_\_\_  
 Remarks: (Include photo numbers here or on a separate sheet.)  
 Emergent marsh vegetation. Some species may be dead or not apparent right now.

**Hydrophytic Vegetation Indicators:**  
 \_\_\_\_\_ Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
 \_\_\_\_\_ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 \_\_\_\_\_ Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No \_\_\_\_\_

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)**

Depth (inches)	Matrix			Redox Features				Texture	Remarks
	Color (moist)		%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 6	10YR	3.0 / 2	100					SILTY CLAY LOAM	
6 to 11	10YR	7.0 / 2	70	7.5 YR 4/6	3	C	M	SILTY CLAY	
6 to 11	10YR	4.0 / 2	27					SILTY CLAY LOAM	
11 to 20	10YR	7.0 / 2	30	7.5 YR 6/4	70	RM	M	SILTY CLAY	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |   |   |
|---|---|
| <input type="checkbox"/> Histosol (A1)                                | <input type="checkbox"/> Sandy Redox (S5)           |
| <input type="checkbox"/> Histic Epipedon (A2)                         | <input type="checkbox"/> Stripped Matrix (S6)       |
| <input type="checkbox"/> Black Histic (A3)                            | <input type="checkbox"/> Loamy Mucky Mineral (F1)   |
| <input type="checkbox"/> Hydrogen Sulfide (A4)                        | <input type="checkbox"/> Loamy Gleyed Matrix (F2)   |
| <input type="checkbox"/> Stratified Layers (A5) LRR C                 | <input type="checkbox"/> Depleted Matrix (F3)       |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D                       | <input type="checkbox"/> Redox Dark Surface (F6)    |
| <input checked="" type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12)                     | <input type="checkbox"/> Redox Depressions (F8)     |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)                     | <input type="checkbox"/> Vernal Pools (F9)          |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)                     |   |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- |   |
|---|
| <input type="checkbox"/> 1 cm Muck (A9) (LRR C)     |
| <input type="checkbox"/> 2 cm Muck (A10) (LRR B)    |
| <input type="checkbox"/> Reduced Vertic (F18)       |
| <input type="checkbox"/> Red Parent Material (TF2)  |
| <input type="checkbox"/> Other (Explain in Remarks) |

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.☐ **Restrictive Layer (if observed):**Type: clayDepth (inches): 6**Hydric Soil Present?** Yes X No     

## Remarks:

6-11 layer not fully depleted, meets hydric indicator A11.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input checked="" type="checkbox"/> Biotic Crust (B12)                 |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- |   |
|---|
| <input type="checkbox"/> Water Marks (B1) (Riverine)            |
| <input type="checkbox"/> Sediment Deposits (B2) (Riverine)      |
| <input type="checkbox"/> Drift Deposits (B3) (Riverine)         |
| <input type="checkbox"/> Drainage Patterns (B10)                |
| <input type="checkbox"/> Dry-Season Water Table (C2)            |
| <input type="checkbox"/> Crayfish Burrows (C8)                  |
| <input type="checkbox"/> Saturation Visible on Aerial Imag.(C9) |
| <input type="checkbox"/> Shallow Aquitard (D3)                  |
| <input checked="" type="checkbox"/> FAC-Neutral Test (D5)       |

**Field Observations:**

Surface Water Present?	Yes <u>    </u> No <u>X</u>	Depth (inches):	<u>    --    </u>
Water Table Present?	Yes <u>    </u> No <u>X</u>	Depth (inches):	<u>    --    </u>
Saturation Present?	Yes <u>    </u> No <u>X</u>	Depth (inches):	<u>    0    </u>

(includes capillary fringe)

**Wetland Hydrology Present?** Yes X No     

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

No groundwater encountered - saturation at surface from irrigation. Algal mat is an indicator for B12.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 5/16/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet:  Sampling Point: 05-W-201205161544  
 Investigators: Trent Toler Section, Township, Range S 30 T 5 R 2  
 Landform (hillslope, terrace, etc.): Basin Local Relief (concave, convex, none): Concave Slope(%) 0  
 Subregion (LRR): LRR D Lat: 41.1352070725 Long: -112.104873661 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Harrisville-Leland complex, 0 to 1 percent slopes NWI Classification: PEMA  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No  (If No, explain in Remarks)  
 Are Vegetation , Soil , Hydrology , significantly disturbed? Are "Normal Circumstances" present? Yes X No   
 Are Vegetation , Soil , Hydrology , naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No <u></u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No <u></u> <b>Wetland ID:</b> <u>05-W-18</u>
Hydric Soil Present? Yes <u>X</u> No <u></u>	
Wetland Hydrology Present? Yes <u>X</u> No <u></u>	

Remarks:  
 Small basin appears irrigation confounding, currently dry.

## VEGETATION - Use scientific names of plants.

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
Eleocharis palustris	90	Y	OBL
Schoenoplectus pungens	5	N	OBL
Phragmites australis	3	N	FACW
Lactuca serriola	2	N	FACU
Typha latifolia	2	N	OBL
	102	=Total Cover	

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across all Strata: 1 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>97</u>	x 1 = <u>97</u>
FACW species <u>3</u>	x 2 = <u>6</u>
FAC species <u>0</u>	x 3 = <u>0</u>
FACU species <u>2</u>	x 4 = <u>8</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>102</u> (A)	<u>111</u> (B)

Prevalence Index = B/A = 1.09

### Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
 Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No

% Bare Ground in Herb Stratum 2 % Cover of Biotic Crust

Remarks: (Include photo numbers here or on a separate sheet.)

Hydrophytic vegetation present.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 4	10YR 3.0 / 2	100		15	C	M	SILTY CLAY LOAM	
4 to 8	10YR 7.0 / 2	100					SILTY CLAY	
8 to 15	10YR 5.0 / 2	60	5YR6/6	40	RM	M	SILTY CLAY	
15 to 19	7.5YR 5.0 / 4	80	10YR6/2	20	RM	M	SILTY CLAY	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |   |   |
|---|---|
| <input type="checkbox"/> Histosol (A1)                                | <input type="checkbox"/> Sandy Redox (S5)           |
| <input type="checkbox"/> Histic Epipedon (A2)                         | <input type="checkbox"/> Stripped Matrix (S6)       |
| <input type="checkbox"/> Black Histic (A3)                            | <input type="checkbox"/> Loamy Mucky Mineral (F1)   |
| <input type="checkbox"/> Hydrogen Sulfide (A4)                        | <input type="checkbox"/> Loamy Gleyed Matrix (F2)   |
| <input type="checkbox"/> Stratified Layers (A5) LRR C                 | <input type="checkbox"/> Depleted Matrix (F3)       |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D                       | <input type="checkbox"/> Redox Dark Surface (F6)    |
| <input checked="" type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12)                     | <input type="checkbox"/> Redox Depressions (F8)     |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)                     | <input type="checkbox"/> Vernal Pools (F9)          |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)                     |   |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)  
☐ 2 cm Muck (A10) (LRR B)  
☐ Reduced Vertic (F18)  
☐ Red Parent Material (TF2)  
☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes X No \_\_\_\_\_

## Remarks:

Dry and hard soils meets A11 indicator.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input checked="" type="checkbox"/> Surface Soil Cracks (B6)       | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)  
☐ Sediment Deposits (B2) (Riverine)  
☐ Drift Deposits (B3) (Riverine)  
☐ Drainage Patterns (B10)  
☐ Dry-Season Water Table (C2)  
☐ Crayfish Burrows (C8)  
☐ Saturation Visible on Aerial Imag.(C9)  
☐ Shallow Aquitard (D3)  
☒ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present?	Yes _____ No <u>X</u>	Depth (inches):	____
Water Table Present?	Yes _____ No <u>X</u>	Depth (inches):	____
Saturation Present?	Yes _____ No <u>X</u>	Depth (inches):	____

(includes capillary fringe)

**Wetland Hydrology Present?** Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

Area dry with no groundwater encountered. Area apparently supported by surface irrigation with prominent soil cracks.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 5/17/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: \_\_\_\_\_ Sampling Point: 05-W-201205171026  
 Investigators: Trent Toler Section, Township, Range S 30 T 5 R 2  
 Landform (hillslope, terrace, etc.): Basin Local Relief (concave, convex, none): Concave Slope(%) 0  
 Subregion (LRR): LRR D Lat: 41.1363855895 Long: -112.10478564 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Harrisville-Leland complex, 0 to 1 percent slopes NWI Classification: PEMC  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ Wetland ID: <u>05-W-72</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks:  
 Emergent marsh surrounding pond may have been affected by construction activity at some point. Problematic soils meet TF2 indicator.

## VEGETATION— Use scientific names of plants.

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
<u>Typha latifolia</u>	<u>70</u>	<u>Y</u>	<u>OBL</u>
<u>Carex nebrascensis</u>	<u>25</u>	<u>Y</u>	<u>OBL</u>
<u>Juncus arcticus</u>	<u>10</u>	<u>N</u>	<u>FACW</u>
<u>Eleocharis palustris</u>	<u>5</u>	<u>N</u>	<u>OBL</u>
<u>Poa pratensis</u>	<u>3</u>	<u>N</u>	<u>FAC</u>
<u>Nasturtium officinale</u>	<u>2</u>	<u>N</u>	<u>OBL</u>
	<u>115</u> =Total Cover		

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across all Strata: 2 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>102</u>	x 1 = <u>102</u>
FACW species <u>10</u>	x 2 = <u>20</u>
FAC species <u>3</u>	x 3 = <u>9</u>
FACU species <u>0</u>	x 4 = <u>0</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>115</u> (A)	<u>131</u> (B)

Prevalence Index = B/A= 1.14

### Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
 \_\_\_\_\_ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 \_\_\_\_\_ Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No \_\_\_\_\_

% Bare Ground in Herb Stratum 5 % Cover of Biotic Crust

Remarks: (Include photo numbers here or on a separate sheet.)  
 Sample plot from pond edge into emergent marsh is hydrophytic.



**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)**

Depth (inches)	Matrix			Redox Features				Texture	Remarks
	Color (moist)		%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 2	10YR	3.0 / 2	100					LOAM	
2 to 8	5YR	6.0 / 4	70	7.5YR 5/8	5	C	PL	CLAY	
8 to 10	10YR	3.0 / 2	90	Gley1 2.5/N	10	C	PL	CLAY	
8 to 10	2.5Y	6.0 / 2	25		5	C	PL	SANDY CLAY	
10 to 18	2.5YR	5.0 / 4	100		10	C	PL	SILTY CLAY	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |   |
|--|---|
| <input type="checkbox"/> Histic Sol (A1)                   | <input type="checkbox"/> Sandy Redox (S5)           |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)       |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)   |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)   |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input type="checkbox"/> Depleted Matrix (F3)       |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)     |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)          |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |   |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- |   |
|---|
| <input type="checkbox"/> 1 cm Muck (A9) (LRR C)               |
| <input type="checkbox"/> 2 cm Muck (A10) (LRR B)              |
| <input type="checkbox"/> Reduced Vertic (F18)                 |
| <input checked="" type="checkbox"/> Red Parent Material (TF2) |
| <input type="checkbox"/> Other (Explain in Remarks)           |

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.☒ **Restrictive Layer (if observed):**Type: clayDepth (inches): 3**Hydric Soil Present?** Yes X No     

## Remarks:

Redox from 2-10 inches, but in red clays. Area may have been constructed?

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input checked="" type="checkbox"/> Surface Water (A1)             | <input type="checkbox"/> Salt Crust (B11)                              |
| <input checked="" type="checkbox"/> High Water Table (A2)          | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input checked="" type="checkbox"/> Saturation (A3)                | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- |   |
|---|
| <input type="checkbox"/> Water Marks (B1) (Riverine)            |
| <input type="checkbox"/> Sediment Deposits (B2) (Riverine)      |
| <input type="checkbox"/> Drift Deposits (B3) (Riverine)         |
| <input type="checkbox"/> Drainage Patterns (B10)                |
| <input type="checkbox"/> Dry-Season Water Table (C2)            |
| <input type="checkbox"/> Crayfish Burrows (C8)                  |
| <input type="checkbox"/> Saturation Visible on Aerial Imag.(C9) |
| <input type="checkbox"/> Shallow Aquitard (D3)                  |
| <input checked="" type="checkbox"/> FAC-Neutral Test (D5)       |

**Field Observations:**

Surface Water Present?	Yes	<u>X</u>	No	<u>    </u>	Depth (inches):	<u>1</u>
Water Table Present?	Yes	<u>X</u>	No	<u>    </u>	Depth (inches):	<u>0</u>
Saturation Present?	Yes	<u>X</u>	No	<u>    </u>	Depth (inches):	<u>0</u>

(includes capillary fringe)

**Wetland Hydrology Present?** Yes X No     

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

Surface water becomes deeper towards the adjacent open water pond.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 5/17/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet:  Sampling Point: 05-W-201205171330  
 Investigators: Trent Toler Section, Township, Range S 30 T 5 R 2  
 Landform (hillslope, terrace, etc.): Basin Local Relief (concave, convex, none): Concave Slope(%) 5  
 Subregion (LRR): LRR D Lat: 41.1383496711 Long: -112.104354223 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Harrisville-Leland complex, 0 to 1 percent slopes NWI Classification: PEMA  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No  (If No, explain in Remarks)  
 Are Vegetation , Soil , Hydrology , significantly disturbed? Are "Normal Circumstances" present? Yes X No   
 Are Vegetation , Soil , Hydrology , naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No <u></u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No <u></u>  <b>Wetland ID:</b> <u>05-W-74</u>
Hydric Soil Present? Yes <u>X</u> No <u></u>	
Wetland Hydrology Present? Yes <u>X</u> No <u></u>	

Remarks:  
 Wetland adjacent to a large pond.

<b>VEGETATION</b> — Use scientific names of plants. <u>Tree Stratum</u> <u>Shrub Stratum</u> <u>Herb Stratum</u> (Plot size: <u>30 Ft</u> ) <table border="1"> <thead> <tr> <th></th> <th><u>Absolute % Cover</u></th> <th><u>Dominant Species</u></th> <th><u>Indicator Status</u></th> </tr> </thead> <tbody> <tr> <td>Juncus arcticus</td> <td>50</td> <td>Y</td> <td>FACW</td> </tr> <tr> <td>Carex praegracilis</td> <td>30</td> <td>Y</td> <td>FACW</td> </tr> <tr> <td>Carex nebrascensis</td> <td>15</td> <td>N</td> <td>OBL</td> </tr> <tr> <td>Elymus repens</td> <td>10</td> <td>N</td> <td>FAC</td> </tr> <tr> <td>Schoenoplectus pungens</td> <td>3</td> <td>N</td> <td>OBL</td> </tr> <tr> <td></td> <td>108</td> <td colspan="2">=Total Cover</td> </tr> </tbody> </table> <u>Vine Stratum</u>		<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>	Juncus arcticus	50	Y	FACW	Carex praegracilis	30	Y	FACW	Carex nebrascensis	15	N	OBL	Elymus repens	10	N	FAC	Schoenoplectus pungens	3	N	OBL		108	=Total Cover		<b>Dominance Test Worksheet:</b> Number of Dominant Species That are OBL, FACW, or FAC: <u>2</u> (A)  Total Number of Dominant Species Across all Strata: <u>2</u> (B)  Percent of Dominant Species That are OBL, FACW, or FAC: <u>100.0%</u> (A/B)  <b>Prevalence Index Worksheet:</b> <table border="1"> <thead> <tr> <th>Total % Cover of:</th> <th>Multiply by:</th> </tr> </thead> <tbody> <tr> <td>OBL species <u>18</u></td> <td>x 1 = <u>18</u></td> </tr> <tr> <td>FACW species <u>80</u></td> <td>x 2 = <u>160</u></td> </tr> <tr> <td>FAC species <u>10</u></td> <td>x 3 = <u>30</u></td> </tr> <tr> <td>FACU species <u>0</u></td> <td>x 4 = <u>0</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>108</u> (A)</td> <td><u>208</u> (B)</td> </tr> </tbody> </table> <i>Prevalence Index = B/A =</i> <u>1.93</u>  <b>Hydrophytic Vegetation Indicators:</b> <u></u> Rapid Test for Hydrophytic Vegetation <u>X</u> Dominance Test > 50% <u>X</u> Prevalence Index ≤ 3.0 <u></u> Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet) <u></u> Problematic Hydrophytic Vegetation (Explain) Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.  <b>Hydrophytic Vegetation Present?</b> Yes <u>X</u> No <u></u>	Total % Cover of:	Multiply by:	OBL species <u>18</u>	x 1 = <u>18</u>	FACW species <u>80</u>	x 2 = <u>160</u>	FAC species <u>10</u>	x 3 = <u>30</u>	FACU species <u>0</u>	x 4 = <u>0</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>108</u> (A)	<u>208</u> (B)
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% Bare Ground in Herb Stratum  % Cover of Biotic Crust

Remarks: (Include photo numbers here or on a separate sheet.)  
 Vegetation is hydrophytic. Not 100% confidence in species identification of young grasses.

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)**

Depth (inches)	Matrix			Redox Features				Texture	Remarks
	Color (moist)		%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 4	10YR	4.0 / 2	95	10YR 6/4	5	C	PL	SILTY CLAY LOAM	
4 to 11	10YR	7.0 / 2	85					SILTY CLAY LOAM	
4 to 11	10YR	4.0 / 2	15					SILTY CLAY	
11 to 18	5YR	5.0 / 4	100					CLAY	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- ☐ Histosol (A1)  
☐ Histic Epipedon (A2)  
☐ Black Histic (A3)  
☐ Hydrogen Sulfide (A4)  
☐ Stratified Layers (A5) LRR C  
☐ 1 cm Muck (A9) LRR F D  
☐ Depleted Below Dark Surface (A11)  
☐ Thick Dark Surface (A12)  
☐ Sandy Mucky Mineral (S1)  
☐ Sandy Gleyed Matrix (S4)  
☐ Sandy Redox (S5)  
☐ Stripped Matrix (S6)  
☐ Loamy Mucky Mineral (F1)  
☐ Loamy Gleyed Matrix (F2)  
☒ Depleted Matrix (F3)  
☐ Redox Dark Surface (F6)  
☐ Depleted Dark Surface (F7)  
☐ Redox Depressions (F8)  
☐ Vernal Pools (F9)

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- ☐ 1 cm Muck (A9) (LRR C)  
☐ 2 cm Muck (A10) (LRR B)  
☐ Reduced Vertic (F18)  
☐ Red Parent Material (TF2)  
☐ Other (Explain in Remarks)

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.☐ **Restrictive Layer (if observed):**Type: clayDepth (inches): 4**Hydric Soil Present?** Yes X No     

## Remarks:

Depleted matrix starting at 4 inches.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)  
☐ High Water Table (A2)  
☒ Saturation (A3)  
☐ Water Marks (B1) (Nonriverine)  
☐ Sediment Deposits (B2) (Nonriverine)  
☐ Drift Deposits (B3) (Nonriverine)  
☐ Surface Soil Cracks (B6)  
☐ Inundation Visible on Aerial Imagery (B7)  
☐ Water-Stained Leaves (B9)  
☐ Salt Crust (B11)  
☐ Biotic Crust (B12)  
☐ Aquatic Fauna (B13)  
☐ Hydrogen Sulfide Odor (C1)  
☐ Oxidized Rhizospheres along Living Roots (C3)  
☐ Presence of Reduced Iron (C4)  
☐ Recent Iron Reduction in Tilled Soils (C6)  
☐ Thin Muck Surface (C7)  
☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)  
☐ Sediment Deposits (B2) (Riverine)  
☐ Drift Deposits (B3) (Riverine)  
☐ Drainage Patterns (B10)  
☐ Dry-Season Water Table (C2)  
☐ Crayfish Burrows (C8)  
☐ Saturation Visible on Aerial Imag.(C9)  
☐ Shallow Aquitard (D3)  
☒ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present? Yes      No X Depth (inches):     --      
 Water Table Present? Yes      No X Depth (inches):     19      
 Saturation Present? Yes X No      Depth (inches):     10      
 (includes capillary fringe)

**Wetland Hydrology Present?** Yes X No     

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

Surface moist but saturation doesn't start until 10 inches.

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 5/17/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet: \_\_\_\_\_ Sampling Point: 05-W-201205171450  
 Investigators: Trent Toler Section, Township, Range S 30 T 5 R 2  
 Landform (hillslope, terrace, etc.): Basin Local Relief (concave, convex, none): Concave Slope(%) 5  
 Subregion (LRR): LRR D Lat: 41.1386913658 Long: -112.104515922 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Harrisville-Leland complex, 0 to 1 percent slopes NWI Classification: PEMA  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If No, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, Hydrology \_\_\_\_\_, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____  <b>Wetland ID:</b> <u>05-W-20</u>
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks:  
 Small emergent marsh is connected to pond via old culvert.

## VEGETATION— Use scientific names of plants.

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
<u>Typha latifolia</u>	<u>40</u>	<u>Y</u>	<u>OBL</u>
<u>Carex nebrascensis</u>	<u>30</u>	<u>Y</u>	<u>OBL</u>
<u>Carex praegracilis</u>	<u>20</u>	<u>Y</u>	<u>FACW</u>
<u>Juncus arcticus</u>	<u>20</u>	<u>Y</u>	<u>FACW</u>
	<u>110</u>	<u>=Total Cover</u>	

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 4 (A)  
  
 Total Number of Dominant Species Across all Strata: 4 (B)  
  
 Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	<u>70</u>	x 1 =	<u>70</u>
FACW species	<u>40</u>	x 2 =	<u>80</u>
FAC species	<u>0</u>	x 3 =	<u>0</u>
FACU species	<u>0</u>	x 4 =	<u>0</u>
UPL species	<u>0</u>	x 5 =	<u>0</u>
Column Totals:	<u>110</u> (A)		<u>150</u> (B)
<i>Prevalence Index = B/A=</i>		<u>1.36</u>	

### Hydrophytic Vegetation Indicators:

       Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
       Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
       Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No \_\_\_\_\_

% Bare Ground in Herb Stratum \_\_\_\_\_ % Cover of Biotic Crust \_\_\_\_\_

Remarks: (Include photo numbers here or on a separate sheet.)

Emergent marsh.

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix			Redox Features				Texture	Remarks
	Color (moist)		%	Color (moist)		%	Type <sup>1</sup>		
0 to 7	10YR	3.0 / 1	95	10YR7/2	5	RM	PL	CLAY LOAM	
7 to 14	10YR	3.0 / 1	25	10YR7/2	75	RM	M	CLAY LOAM	
14 to 19	10YR	6.0 / 3	95	7.5YR6/6	5	C	PL	SILTY CLAY	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators:**

☐ Histosol (A1)☐ Histic Epipedon (A2)☐ Black Histic (A3)☐ Hydrogen Sulfide (A4)☐ Stratified Layers (A5) LRR C☐ 1 cm Muck (A9) LRR F D☒ Depleted Below Dark Surface (A11)☐ Thick Dark Surface (A12)☐ Sandy Mucky Mineral (S1)☐ Sandy Gleyed Matrix (S4)☐ Sandy Redox (S5)☐ Stripped Matrix (S6)☐ Loamy Mucky Mineral (F1)☐ Loamy Gleyed Matrix (F2)☐ Depleted Matrix (F3)☐ Redox Dark Surface (F6)☒ Depleted Dark Surface (F7)☐ Redox Depressions (F8)☐ Vernal Pools (F9)

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

☐ 1 cm Muck (A9) (LRR C)☐ 2 cm Muck (A10) (LRR B)☐ Reduced Vertic (F18)☐ Red Parent Material (TF2)☐ Other (Explain in Remarks)

☐ **Restrictive Layer (if observed):**

Type: Depth (inches):

**Hydric Soil Present?** Yes ☒ No ☐

Remarks:

Soil profile meets A11 indicator.

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

HYDROLOGY

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

☒ Surface Water (A1)☒ High Water Table (A2)☒ Saturation (A3)☐ Water Marks (B1) (Nonriverine)☐ Sediment Deposits (B2) (Nonriverine)☐ Drift Deposits (B3) (Nonriverine)☐ Surface Soil Cracks (B6)☐ Inundation Visible on Aerial Imagery (B7)☐ Water-Stained Leaves (B9)☐ Salt Crust (B11)☐ Biotic Crust (B12)☐ Aquatic Fauna (B13)☐ Hydrogen Sulfide Odor (C1)☐ Oxidized Rhizospheres along Living Roots (C3)☐ Presence of Reduced Iron (C4)☐ Recent Iron Reduction in Tilled Soils (C6)☐ Thin Muck Surface (C7)☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

☐ Water Marks (B1) (Riverine)☐ Sediment Deposits (B2) (Riverine)☐ Drift Deposits (B3) (Riverine)☐ Drainage Patterns (B10)☐ Dry-Season Water Table (C2)☐ Crayfish Burrows (C8)☐ Saturation Visible on Aerial Imag.(C9)☐ Shallow Aquitard (D3)☒ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present? Yes ☒ No ☐ Depth (inches): 

1

Water Table Present? Yes ☒ No ☐ Depth (inches): 

0

Saturation Present? Yes ☒ No ☐ Depth (inches): 

0

(includes capillary fringe)

**Wetland Hydrology Present?** Yes ☒ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Very wet and ponding.

US Army Corps of Engineers

HDR

Arid West – Version 2.0

# WETLAND DETERMINATION DATA FORM - Arid West Region

Project Site: West Davis Corridor City/County: Davis County Sampling Date: 5/22/2012  
 Applicant/Owner: UDOT State: UT Map/Sheet:  Sampling Point: 05-W-201205221413  
 Investigators: Donovan Gross Nate Nichols Section, Township, Range S 30 T 5 R 2  
 Landform (hillslope, terrace, etc.): Basin Local Relief (concave, convex, none): Concave Slope(%) 5  
 Subregion (LRR): LRR C Lat: 41.1366274539 Long: -112.10977517 Datum: GCS\_WGS\_1984  
 Soil Map Unit Name: Harrisville-Leland complex, 0 to 1 percent slopes NWI Classification: PEMA  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No  (If No, explain in Remarks)  
 Are Vegetation , Soil , Hydrology , significantly disturbed? Are "Normal Circumstances" present? Yes X No   
 Are Vegetation , Soil , Hydrology , naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No <u></u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No <u></u>  <b>Wetland ID:</b> <u>05-W-33</u>
Hydric Soil Present? Yes <u>X</u> No <u></u>	
Wetland Hydrology Present? Yes <u>X</u> No <u></u>	

Remarks:  
Sampling point is a wetland.

## VEGETATION— Use scientific names of plants.

### Tree Stratum

### Shrub Stratum

### Herb Stratum (Plot size: 30 Ft )

	<u>Absolute % Cover</u>	<u>Dominant Species</u>	<u>Indicator Status</u>
Schoenoplectus pungens	45	Y	OBL
Juncus arcticus	30	Y	FACW
Phalaris arundinacea	10	N	FACW
Phragmites australis	5	N	FACW
	90	=Total Cover	

### Vine Stratum

### Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 2 (A)  
  
 Total Number of Dominant Species Across all Strata: 2 (B)  
  
 Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)

### Prevalence Index Worksheet:

Total % Cover of:	Multiply by:
OBL species <u>45</u>	x 1 = <u>45</u>
FACW species <u>45</u>	x 2 = <u>90</u>
FAC species <u>0</u>	x 3 = <u>0</u>
FACU species <u>0</u>	x 4 = <u>0</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>90</u> (A)	<u>135</u> (B)
Prevalence Index = B/A= <u>1.50</u>	

### Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Vegetation  
X Dominance Test > 50%  
X Prevalence Index ≤ 3.0  
 Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  
 Problematic Hydrophytic Vegetation (Explain)  
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No

% Bare Ground in Herb Stratum 0 % Cover of Biotic Crust 0

Remarks: (Include photo numbers here or on a separate sheet.)  
Vegetation is hydrophytic.



**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)**

Depth (inches)	Matrix			Redox Features				Texture	Remarks
	Color (moist)		%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 to 12	5Y	5.0 / 1	95	G1 2.5/N	5	C	PL	SILTY CLAY	Mn C
12 to 18	7.5YR	6.0 / 3	100		5	C	PL	CLAY	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- |  |  |
|--|--|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)                |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)            |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)        |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)        |
| <input type="checkbox"/> Stratified Layers (A5) LRR C      | <input checked="" type="checkbox"/> Depleted Matrix (F3) |
| <input type="checkbox"/> 1 cm Muck (A9) LRR F D            | <input type="checkbox"/> Redox Dark Surface (F6)         |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7)      |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)          |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)               |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |  |

**Indicators for Problematic Hydric Soils: <sup>3</sup>**

- |   |
|---|
| <input type="checkbox"/> 1 cm Muck (A9) (LRR C)     |
| <input type="checkbox"/> 2 cm Muck (A10) (LRR B)    |
| <input type="checkbox"/> Reduced Vertic (F18)       |
| <input type="checkbox"/> Red Parent Material (TF2)  |
| <input type="checkbox"/> Other (Explain in Remarks) |

<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.☐ **Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes X No \_\_\_\_\_

## Remarks:

Soil profile meets F3 indicator.

**HYDROLOGY****Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input checked="" type="checkbox"/> High Water Table (A2)          | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input checked="" type="checkbox"/> Saturation (A3)                | <input type="checkbox"/> Aquatic Fauna (B13)                           |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (minimum of two required)

- |   |
|---|
| <input type="checkbox"/> Water Marks (B1) (Riverine)            |
| <input type="checkbox"/> Sediment Deposits (B2) (Riverine)      |
| <input type="checkbox"/> Drift Deposits (B3) (Riverine)         |
| <input type="checkbox"/> Drainage Patterns (B10)                |
| <input type="checkbox"/> Dry-Season Water Table (C2)            |
| <input type="checkbox"/> Crayfish Burrows (C8)                  |
| <input type="checkbox"/> Saturation Visible on Aerial Imag.(C9) |
| <input type="checkbox"/> Shallow Aquitard (D3)                  |
| <input checked="" type="checkbox"/> FAC-Neutral Test (D5)       |

**Field Observations:**

Surface Water Present?	Yes	____	No	<u>X</u>	Depth (inches):	____	--
Water Table Present?	Yes	<u>X</u>	No	____	Depth (inches):	____	4
Saturation Present?	Yes	<u>X</u>	No	____	Depth (inches):	____	0

(includes capillary fringe)

**Wetland Hydrology Present?** Yes X No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

## Remarks:

Shallow water table present.

**Appendix C**  
**Onsite Representative Photographs**



26-W-201207231255







26-W-201207201433



26-W-201207180919





26-W-201207171213





26-N-201207171300



26-N-201207231342





26-N-201207201043



26-N-201207180948





26-W-201206261132



26-N-201207170956





26-N-201207170927



26-N-201207161330





26-W-201207231000



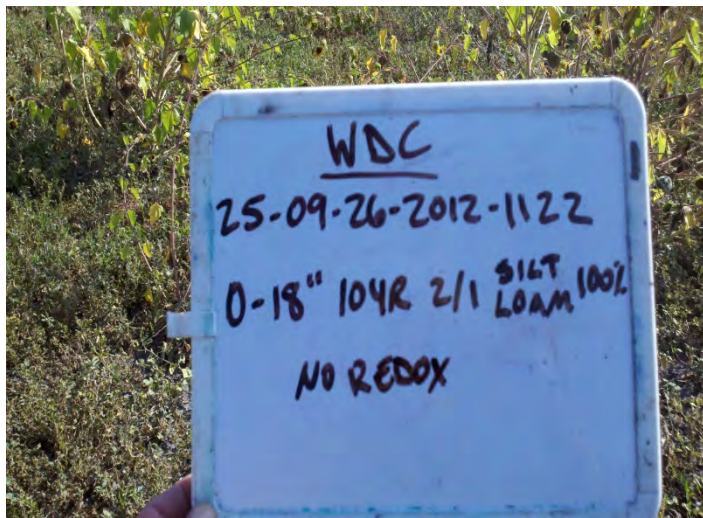
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25-W-201209261345





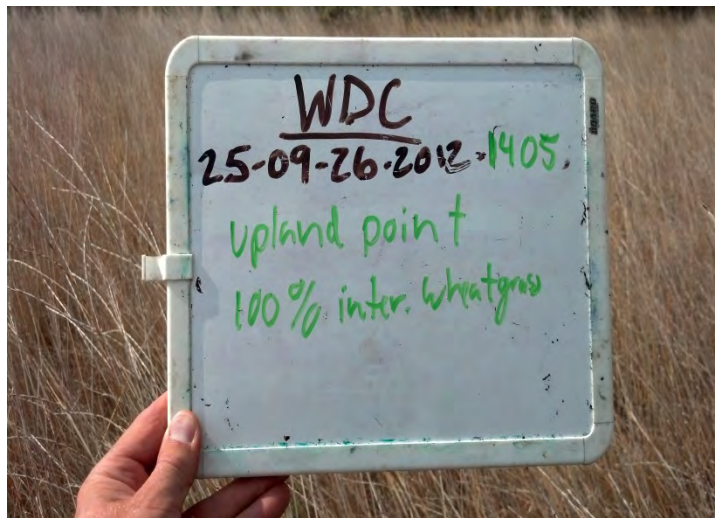
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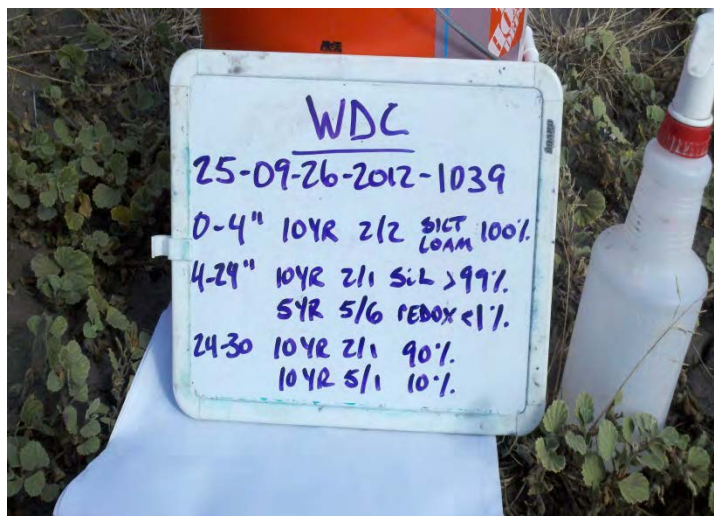


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25-N-201209261405





25-N-201209261039



25-W-201207191315



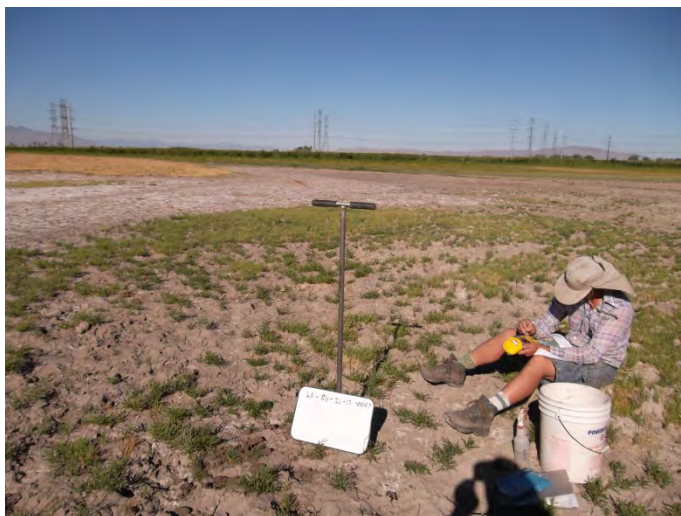


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25-W-201206260847



25-N-201206260804



25-W-201206260932



25-N-201207181100





25-W-201207231233



25-W-201207231020





25-N-201207231153



24-N-201207191055





22-N-201206201553



22-W-201206201455





22-N-201206211252



22-W-201206211417





22-N-201206211210



22-N-201209261055





22-N-201206221208



22-N-201206221145





22-N-201209261345



22-W-201209261442





22-W-201206221256



22-N-201207191434





22-N-201207191547



22-W-201206251045





22-N-201207231457



20-N-201206130903





20-W-201206131049



20-N-201206130953





20-W-201206131412



20-N-201206141342





20-W-201206141030



20-N-201206141120





20-N-201206141212



20-W-201206141430





20-N-201206151004



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18-W-201206120916





18-N-201206120958





18-W-201206111549



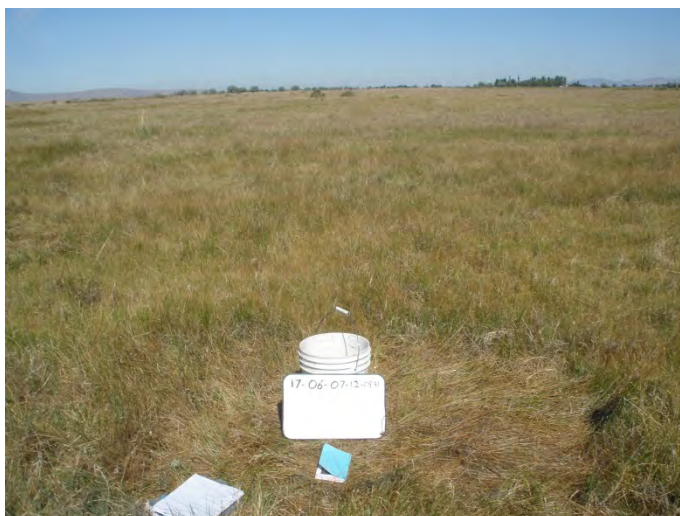


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17-W-201206070845





17-N-201206070931



17-N-201206071020





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17-W-201206071133



17-W-201206071333

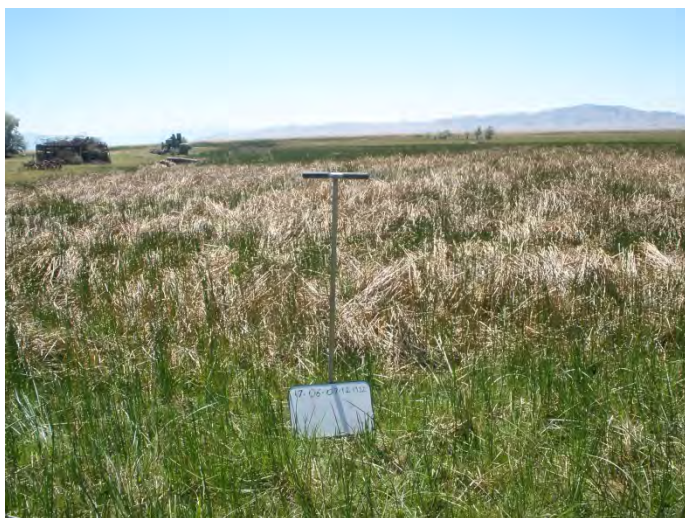


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16-W-201206070953



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16-N-201206071150





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16-W-201206080916



15-W-201206071630





15-N-201206071555



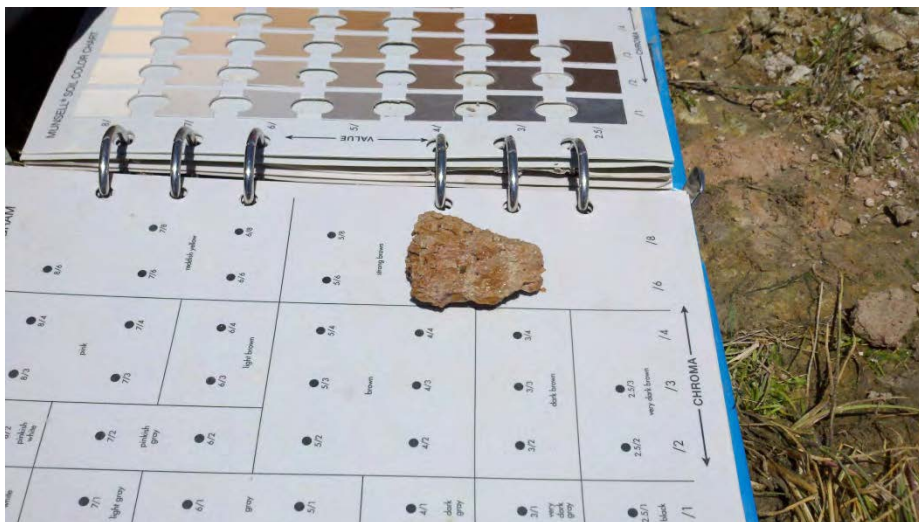


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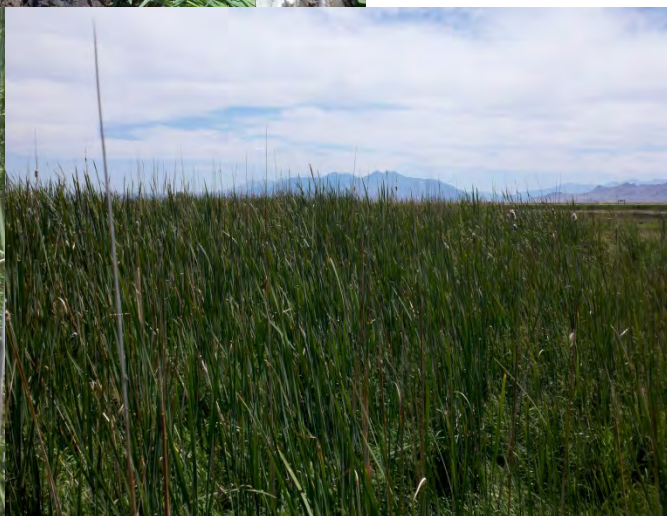


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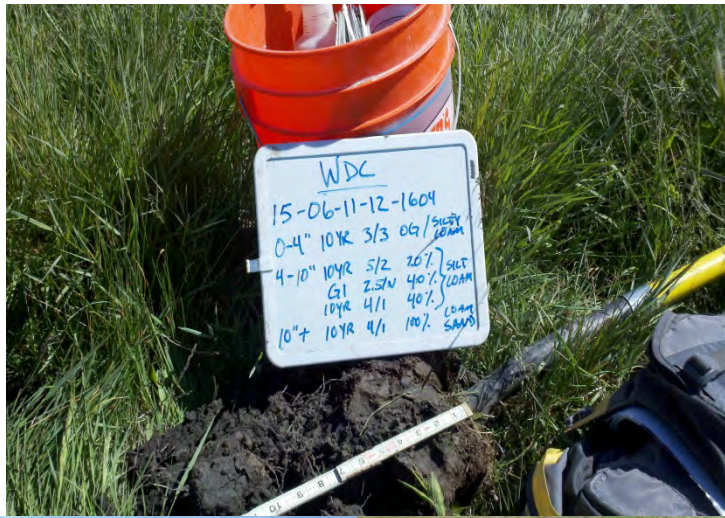
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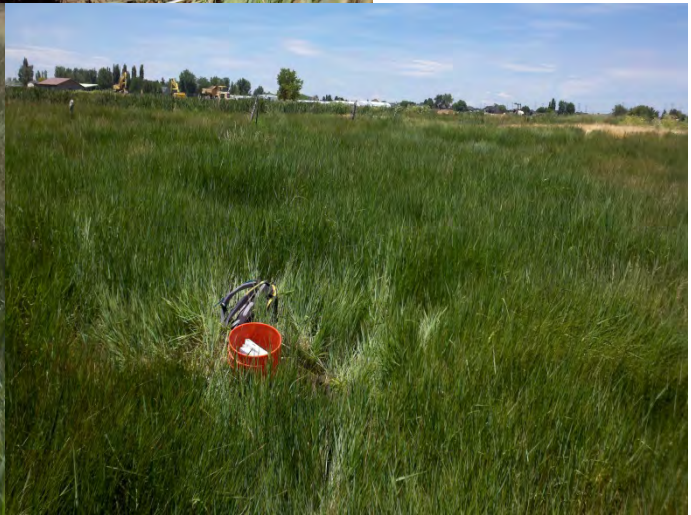
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15-W-201206111604





15-N-201206121320





15-W-201206121227





15-W-201207181433





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15-N-201206061017





15-N-201206061329



15-W-201206061059





14-N-201205101204



14-W-201209211105





14-N-201205101230





14-W-201205021532



14-W-201205021436





14-W-201205021342



14-N-201208091228





14-W-201205031421





14-N-201208131317



14-N-201206070850





14-N-201206071010



14-N-201206051008





14-W-201206051026







14-N-201208151050



14-N-201206071150





14-N-201206071046



14-N-201206071323





14-N-201206081255





12-N-201205100812



12-N-201205091438





12-N-201208171342



12-N-201207301156





12-N-201205081554





12-N-201207301117



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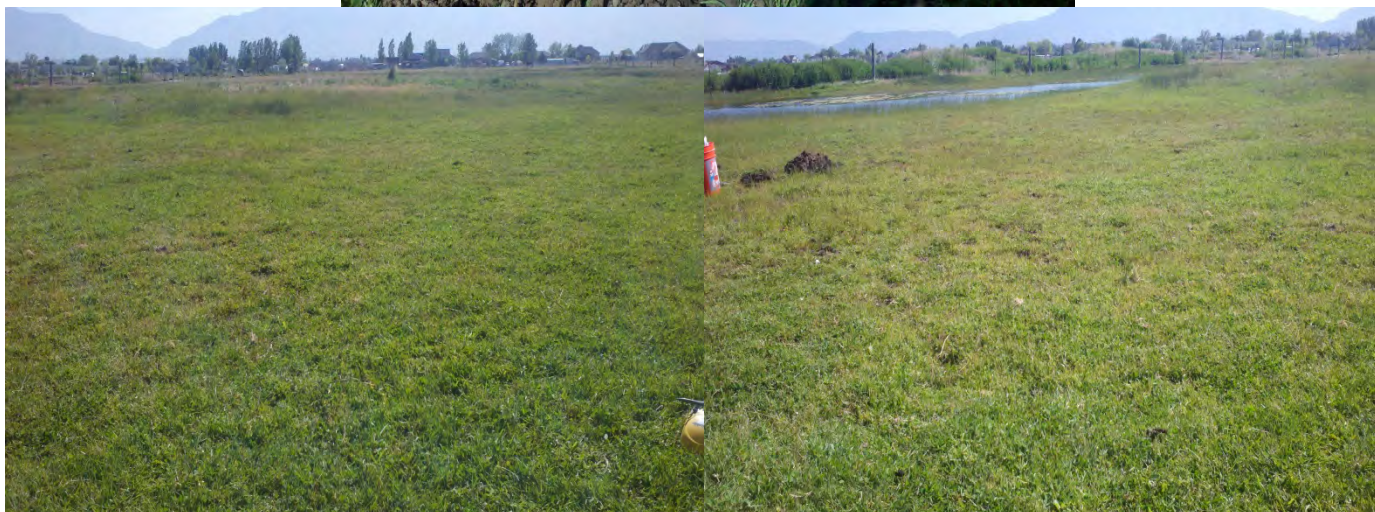
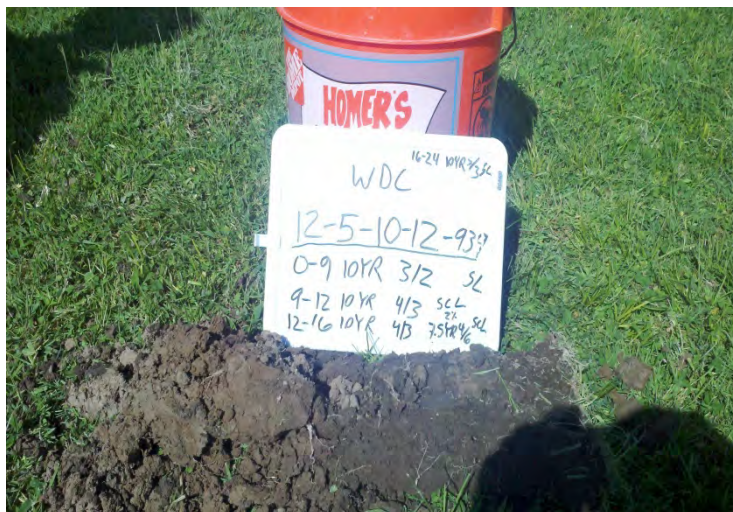


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12-N-201207311324





12-W-201207311255



12-N-201208071455

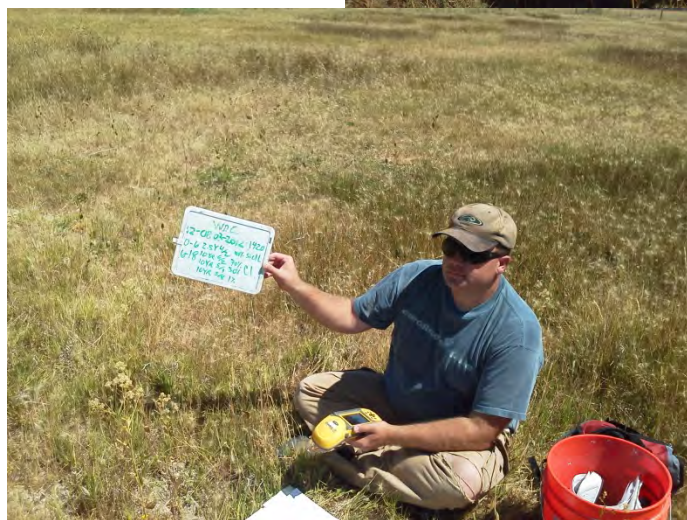




12-N-201208061400



WDC  
12-08-03-2012-1420  
0-6 2.5Y 4/2 100% silt  
6-18 10YR 6/2 70% C1  
10YR 5/1 30% C1  
10YR 5/6 1X

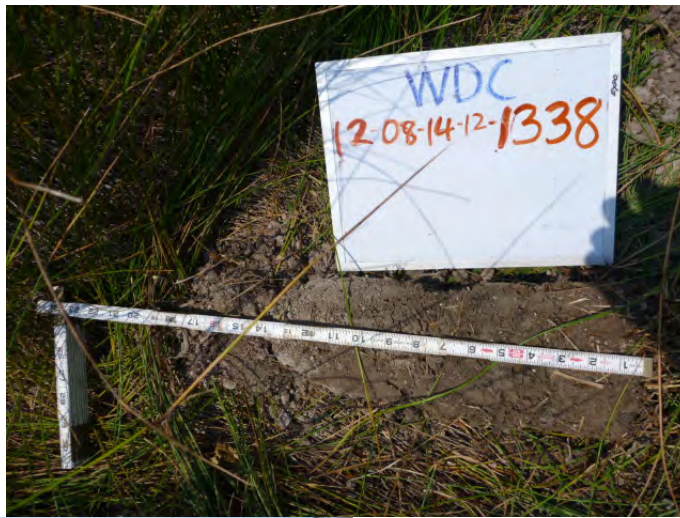


WDC  
12-08-03-2012-1420  
0-6 2.5Y 4/2 100% silt  
6-18 10YR 6/2 70% C1  
10YR 5/1 30% C1  
10YR 5/6 1X



12-W-201208031420





12-W-201208141338



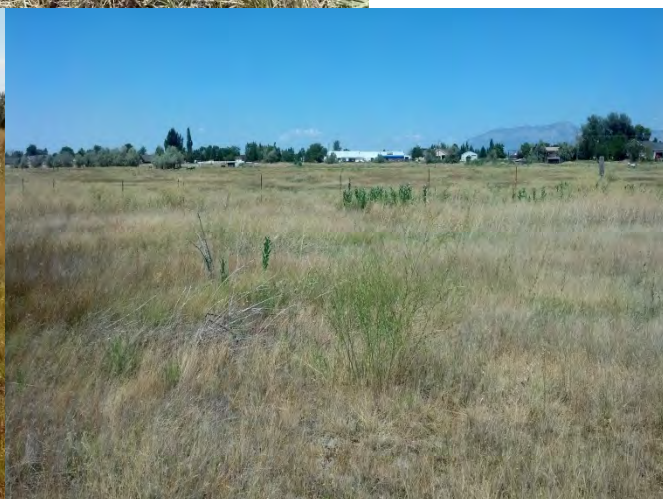
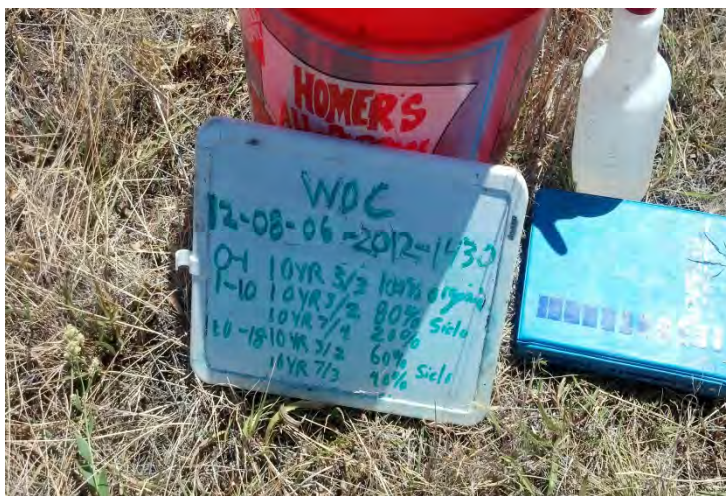


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12-N-201208081107



12-N-201208081148





12-N-201208090957



11-N-201205091350





11-N-201205091404



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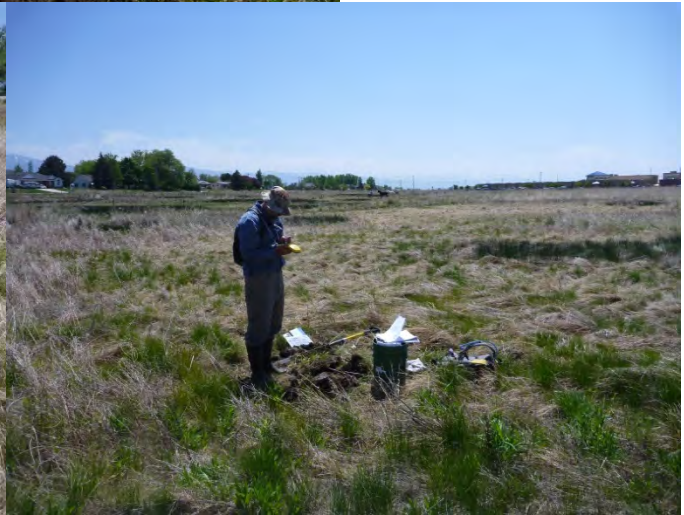


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09-N-201205111105





09-W-201207161305



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09-W-201207171300





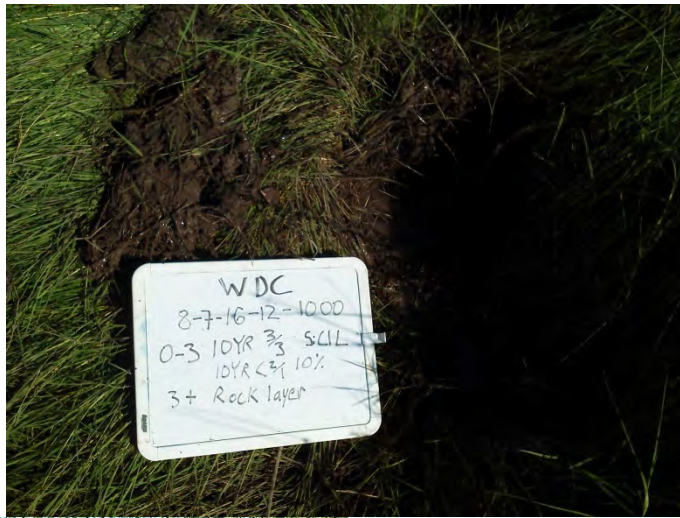
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08-N-201205110856





08-N-201205251047



08-W-201205251222





08-W-201205101305



08-W-201205251403





MPDGACJW-07-W-37-1-IN



**MPDGACJW-07-W-37-1-OUT**



DG-07-W-37-2-IN





DG-07-W-37-2-OUT





JWDG-14-W-95-OUT





MPAC-12-IW-19-2-OUT



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ACDG-07252016-2-IN



ACDG-07262016-1-IN





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MNAC-09012016-1-IN



MNAC-09012016-1-OUT



MNAC-09012016-1-OUT-2





MNAC-09012016-1-IN-2





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DGAC-09122016-4-IN-2





DGAC-09122016-4-OUT



DGAC-09122016-5-IN





DGAC-09122016-2-IN



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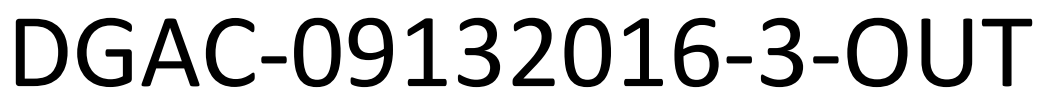


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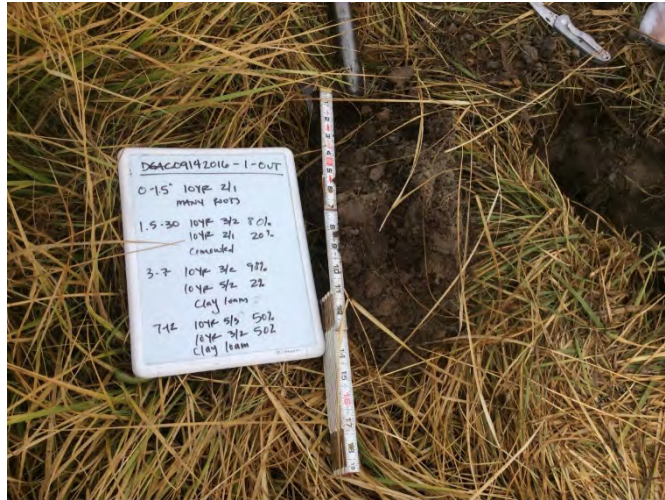


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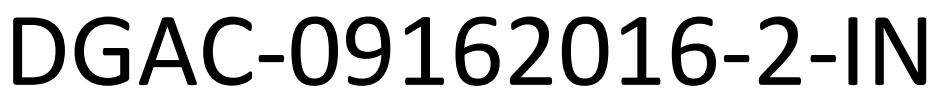


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MP-05222017-1-OUT



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MP-05302017-2-IN





MP-05302017-2-IN-2





MP-05302017-2-OUT



MP-05302017-2-OUT-2



MP-05302017-2-OUT-3



MP-05302017-2-OUT-4





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MP-05312016-1-OUT-3



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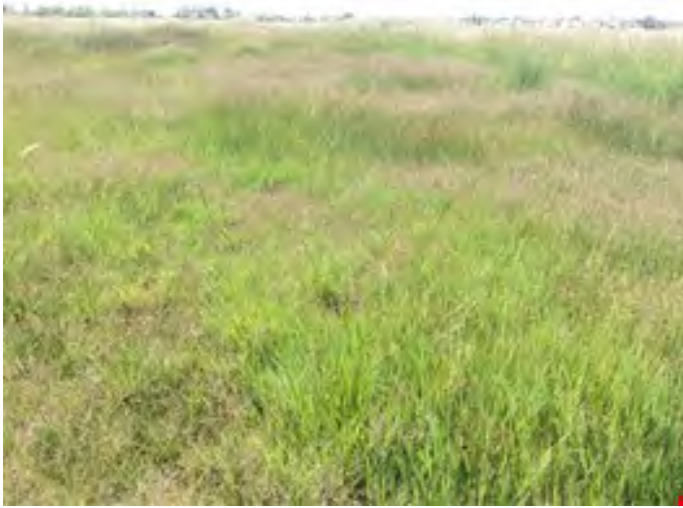
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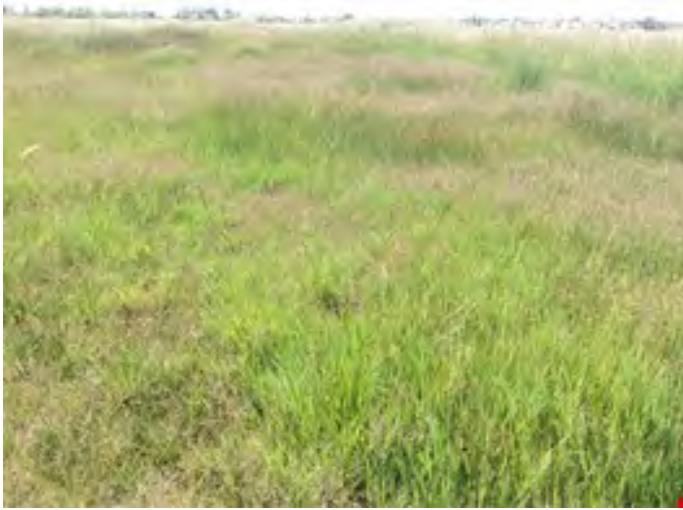
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MP-05312016-3-OUT-2



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MP-06012017-3-OUT-3



MP-06012017-3-OUT-4





MP-06012017-3-OUT-4



MP-06012017-3-OUT-7



MP-05232017-1-IN



MP-05232017-1-OUT



MP-05232017-2-OUT





MP-05232017-3-IN



MP-05232017-3-OUT



MP-05242017-1-IN



MP-05252017-1-IN





MP-05302017-1-OUT





AC06012017-2-IN



AC06012017-1-OUT



AC05312017-1-OUT

**Appendix D**  
**List of Plant Species Observed**

## Appendix D: List of Plant Species Observed

Scientific Name <sup>1</sup>	Common Name	Indicator Status <sup>2</sup>
<i>Acer negundo</i>	boxelder	FACW
<i>Achillea millefolium</i>	common yarrow	FACU
<i>Agropyron cristatum</i>	crested wheatgrass	NL
<i>Agrostis exarata</i>	spike bentgrass	FACW
<i>Agrostis gigantea</i>	redtop	FACW
<i>Agrostis stolonifera</i>	creeping bentgrass	FACW
<i>Allenrolfea occidentalis</i>	iodinebush	FACW
<i>Alopecurus geniculatus</i>	water foxtail	OBL
<i>Amaranthus retroflexus</i>	redroot amaranth	FACU
<i>Ambrosia artemisiifolia</i>	annual ragweed	FACU
<i>Ambrosia psilostachya</i>	Cuman ragweed	FACU
<i>Apocynum cannabinum</i>	Indianhemp	FAC
<i>Arctium minus</i>	lesser burdock	FACU
<i>Aristida dichotoma</i>	churchmouse threeawn	FACU
<i>Asclepias speciosa</i>	showy milkweed	FAC
<i>Atriplex hillmanii</i>	Hillman's silverscale	FACU
<i>Atriplex micrantha</i>	twoscale saltbush	NL
<i>Bassia californica</i>	rusty molly	NL
<i>Bassia hyssopifolia</i>	fivehorn smotherweed	FACU
<i>Bassia scoparia</i>	burningbush	FAC
<i>Bolboschoenus maritimus</i>	cosmopolitan bulrush	OBL
<i>Brassica juncea</i>	Chinese mustard	FACU
<i>Bromus arvensis</i>	field brome	FACU
<i>Bromus inermis</i>	smooth brome	FACU
<i>Bromus marginatus</i>	mountain brome	NL
<i>Bromus racemosus</i>	bald brome	NL
<i>Bromus tectorum</i>	cheatgrass	NL
<i>Capsella bursa-pastoris</i>	shepherd's purse	FACU
<i>Cardaria draba</i>	whitetop	NL
<i>Carduus nutans</i>	nodding plumeless thistle	FACU
<i>Carex nebrascensis</i>	Nebraska sedge	OBL
<i>Carex pellita</i>	woolly sedge	OBL
<i>Carex praeegracilis</i>	clustered field sedge	FACW
<i>Chenopodium album</i>	lambsquarters	FACU
<i>Chenopodium chenopodioides</i>	low goosefoot	FACW
<i>Chenopodium rubrum</i>	red goosefoot	FACW



<i>Cichorium intybus</i>	chicory	FACU
<i>Cirsium arvense</i>	Canadian thistle	FACU
<i>Cirsium vulgare</i>	bull thistle	FACU
<i>Comarum palustre</i>	purple marshlocks	OBL
<i>Conium maculatum</i>	poison hemlock	FACW
<i>Convolvulus arvensis</i>	field bindweed	NL
<i>Convolvulus equitans</i>	Texas bindweed	FACU
<i>Conyza bonariensis</i>	asthmaweed	NL
<i>Conyza canadensis</i>	Canadian horseweed	FACU
<i>Cordylanthus maritimus</i>	saltmarsh bird's-beak	OBL
<i>Curcubita</i> sp.	winter squash	NL
<i>Dactylis glomerata</i>	orchardgrass	FACU
<i>Delphinium hesperium</i>	foothill larkspur	FAC
<i>Descurainia incana</i>	mountain tansymustard	FACU
<i>Descurainia pinnata</i>	western tansymustard	NL
<i>Dipsacus fullonum</i>	Fuller's teasel	FAC
<i>Distichlis spicata</i>	saltgrass	FAC
<i>Echinochloa crus-galli</i>	barnyardgrass	FACW
<i>Elaeagnus angustifolia</i>	Russian olive	FAC
<i>Eleocharis palustris</i>	common spikerush	OBL
<i>Elymus elymoides</i>	squirreltail	FACU
<i>Elymus repens</i>	quackgrass	FAC
<i>Elymus trachycaulus</i>	slender wheatgrass	FACU
<i>Epilobium ciliatum</i>	fringed willowherb	FACW
<i>Epilobium torreyi</i>	Torrey's willowherb	FACW
<i>Equisetum arvense</i>	field horsetail	FAC
<i>Erodium botrys</i>	longbeak stork's bill	FACU
<i>Euthamia occidentalis</i>	western goldentop	FACW
<i>Festuca idahoensis</i>	Idaho fescue	FACU
<i>Festuca ovina</i>	sheep fescue	FACU
<i>Festuca rubra</i>	red fescue	FAC
<i>Glycyrrhiza lepidota</i>	American licorice	FAC
<i>Grindelia squarrosa</i>	curlycup gumweed	FACU
<i>Helianthus annuus</i>	common sunflower	FACU
<i>Hordeum brachyantherum</i>	meadow barley	FACW
<i>Hordeum jubatum</i>	foxtail barley	FAC
<i>Hordeum marinum</i>	seaside barley	FAC
<i>Hordeum pusillum</i>	little barley	FACU
<i>Iva axillaris</i>	povertyweed	FAC
<i>Juncus acutus</i>	spiny rush	FACW
<i>Juncus alpinoarticulatus</i>	northern green rush	OBL

<i>Juncus arcticus</i> ssp. <i>littoralis</i>	mountain rush/baltic rush	FACW
<i>Juncus bufonius</i>	toad rush	FACW
<i>Juncus confusus</i>	Colorado rush	FAC
<i>Juncus torreyi</i>	Torrey's rush	FACW
<i>Lactuca serriola</i>	prickly lettuce	FACU
<i>Lemna minor</i>	common duckweed	OBL
<i>Lepidium latifolium</i>	broadleaved pepperweed	FAC
<i>Lepidium perfoliatum</i>	clasping pepperweed	FACU
<i>Linum lewisii</i>	Lewis flax	NL
<i>Lythrum salicaria</i>	purple loosestrife	OBL
<i>Maianthemum stellatum</i>	starry false lily of the valley	FACU
<i>Malus fusca</i>	Oregon crab apple	FAC
<i>Malva neglecta</i>	common mallow	NL
<i>Malvella leprosa</i>	alkali mallow	FACU
<i>Medicago lupulina</i>	black medick	FAC
<i>Medicago sativa</i>	alfalfa	UPL
<i>Melilotus officinalis</i>	sweetclover	FACU
<i>Mentha arvensis</i>	wild mint	FACW
<i>Mentha spicata</i>	spearmint	FACW
<i>Muhlenbergia asperifolia</i>	scratchgrass	FACW
<i>Nasturtium officinale</i>	watercress	OBL
<i>Onopordum acanthium</i>	Scotch cottonthistle	NL
<i>Panicum capillare</i>	witchgrass	FACU
<i>Pascopyrum smithii</i>	western wheatgrass	FAC
<i>Persicaria maculosa</i>	spotted ladythumb	FACW
<i>Phalaris angusta</i>	timothy canarygrass	FACW
<i>Phalaris arundinacea</i>	reed canarygrass	FACW
<i>Phalaris canariensis</i>	annual canarygrass	FACU
<i>Phleum pratense</i>	timothy	FACU
<i>Phragmites australis</i>	common reed	FACW
<i>Plagiobothrys leptocladus</i>	finebranched popcornflower	OBL
<i>Plantago lanceolata</i>	narrowleaf plantain	FAC
<i>Plantago major</i>	common plantain	FAC
<i>Poa bulbosa</i>	bulbous bluegrass	FACU
<i>Poa leptocoma</i>	marsh bluegrass	FACW
<i>Poa palustris</i>	fowl bluegrass	FAC
<i>Poa pratensis</i>	Kentucky bluegrass	FAC
<i>Poa secunda</i>	Sandberg bluegrass	FACU
<i>Poa trivialis</i>	rough bluegrass	FACW
<i>Polygonum ramosissimum</i>	bushy knotweed	FAC
<i>Polypogon monspeliensis</i>	annual rabbitsfoot grass	FACW

<i>Populus angustifolia</i>	narrowleaf cottonwood	FACW
<i>Populus deltoides</i>	eastern cottonwood	FAC
<i>Populus fremontii</i>	Fremont cottonwood	FAC
<i>Prunus americana</i>	American plum	FACU
<i>Puccinellia fasciculata</i>	saltmarsh alkaligrass	OBL
<i>Puccinellia nuttalliana</i>	Nuttall's alkaligrass	FACW
<i>Pyrrocoma lanceolata</i>	lanceleaf goldenweed	FAC
<i>Ranunculus alismifolius</i>	plantainleaf buttercup	FACW
<i>Ranunculus cymbalaria</i>	alkali buttercup	OBL
<i>Ranunculus orthorhynchus</i>	straightbeak buttercup	FACW
<i>Ranunculus repens</i>	creeping buttercup	FAC
<i>Ranunculus sceleratus</i>	cursed buttercup	OBL
<i>Rorippa curvipes</i>	bluntleaf yellowcress	FACW
<i>Rosa multiflora</i>	multiflora rose	FACU
<i>Rosa woodsii</i>	Woods' rose	FACU
<i>Rumex crispus</i>	curly dock	FAC
<i>Sagina saginoides</i>	arctic pearlwort	FACW
<i>Salicornia rubra</i>	red swampfire	OBL
<i>Salix exigua</i>	narrowleaf willow	FACW
<i>Salix fragilis</i>	crack willow	FAC
<i>Salix interior</i>	sandbar willow	FACW
<i>Salix lasiolepis</i>	arroyo willow	FACW
<i>Sarcobatus vermiculatus</i>	greasewood	FACU
<i>Schedonorus pratensis</i>	meadow fescue	FACU
<i>Schedonorus arundinaceus</i>	tall fescue	FACU
<i>Schoenoplectus acutus</i>	hardstem bulrush	OBL
<i>Schoenoplectus americanus</i>	chairmaker's bulrush	OBL
<i>Schoenoplectus pungens</i>	common threesquare	OBL
<i>Sclerochloa dura</i>	common hardgrass	NL
<i>Secale cereale</i>	cereal rye	NL
<i>Sisymbrium altissimum</i>	tall tumbledustard	FACU
<i>Solanum dulcamara</i>	climbing nightshade	FAC
<i>Solidago canadensis</i>	Canada goldenrod	NL
<i>Sonchus arvensis</i>	field sowthistle	FACU
<i>Sorghum halepense</i>	Johnsongrass	FACU
<i>Spergularia diandra</i>	alkali sandspurry	FACW
<i>Spergularia maritima</i>	media sandspurry	FACW
<i>Spergularia rubra</i>	red sandspurry	FAC
<i>Sporobolus airoides</i>	alkali sacaton	FAC
<i>Sporobolus cryptandrus</i>	sand dropseed	FACU
<i>Suaeda calceoliformis</i>	Pursh seepweed	FACW

<i>Suaeda moquinii</i>	Mojave seablite	OBL
<i>Suaeda occidentalis</i>	western seepweed	FACW
<i>Symphyotrichum chilense</i>	Pacific aster	FAC
<i>Symphyotrichum ciliatum</i>	rayless alkali aster	FACW
<i>Symphyotrichum lanceolatum</i>	white panicle aster	OBL
<i>Tamarix aphylla</i>	Athel tamarisk	FAC
<i>Tamarix ramosissima</i>	saltcedar	FAC
<i>Taraxacum officinale</i>	common dandelion	FACU
<i>Thinopyrum intermedium</i>	intermediate wheatgrass	NL
<i>Thinopyrum ponticum</i>	tall wheatgrass	NL
<i>Tragopogon dubius</i>	yellow salsify	NL
<i>Trifolium fragiferum</i>	strawberry clover	FAC
<i>Trifolium pratense</i>	red clover	FACU
<i>Trifolium repens</i>	white clover	FACU
<i>Triglochin maritima</i>	seaside arrow-grass	OBL
<i>Typha angustifolia</i>	narrowleaf cattail	OBL
<i>Typha latifolia</i>	broadleaf cattail	OBL
<i>Ulmus pumila</i>	Siberian elm	UPL
<i>Urtica dioica</i>	stinging nettle	FAC
<i>Xanthium strumarium</i>	rough cocklebur	FAC

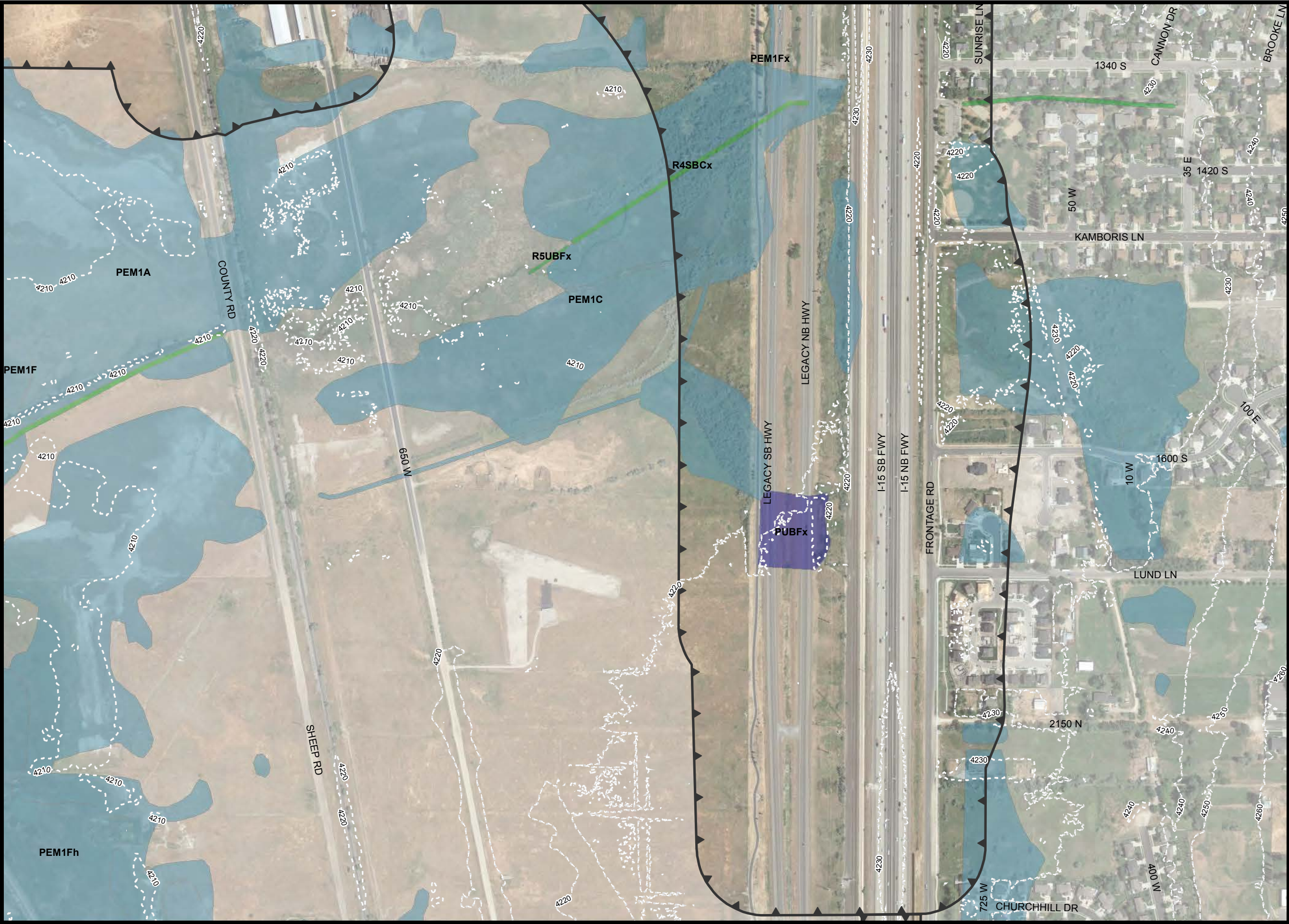
<sup>1</sup> Naming conventions according to USDA NRCS Plants Database (<https://plants.usda.gov/java/>) and 2016 NWPL (Lichvar and others 2016).

<sup>2</sup> Indicator status according to 2016 NWPL (Lichvar and others 2016).

## **Appendix E**

### **NWI Map Series**







**WEST DAVIS**  
CORRIDOR

 Delineation Survey Area

 Freshwater Emergent Wetland

 Freshwater Pond

 Riverine

 Contours



Great Salt Lake

  
1 inch = 400 feet

  
200 0 200 400  
Feet

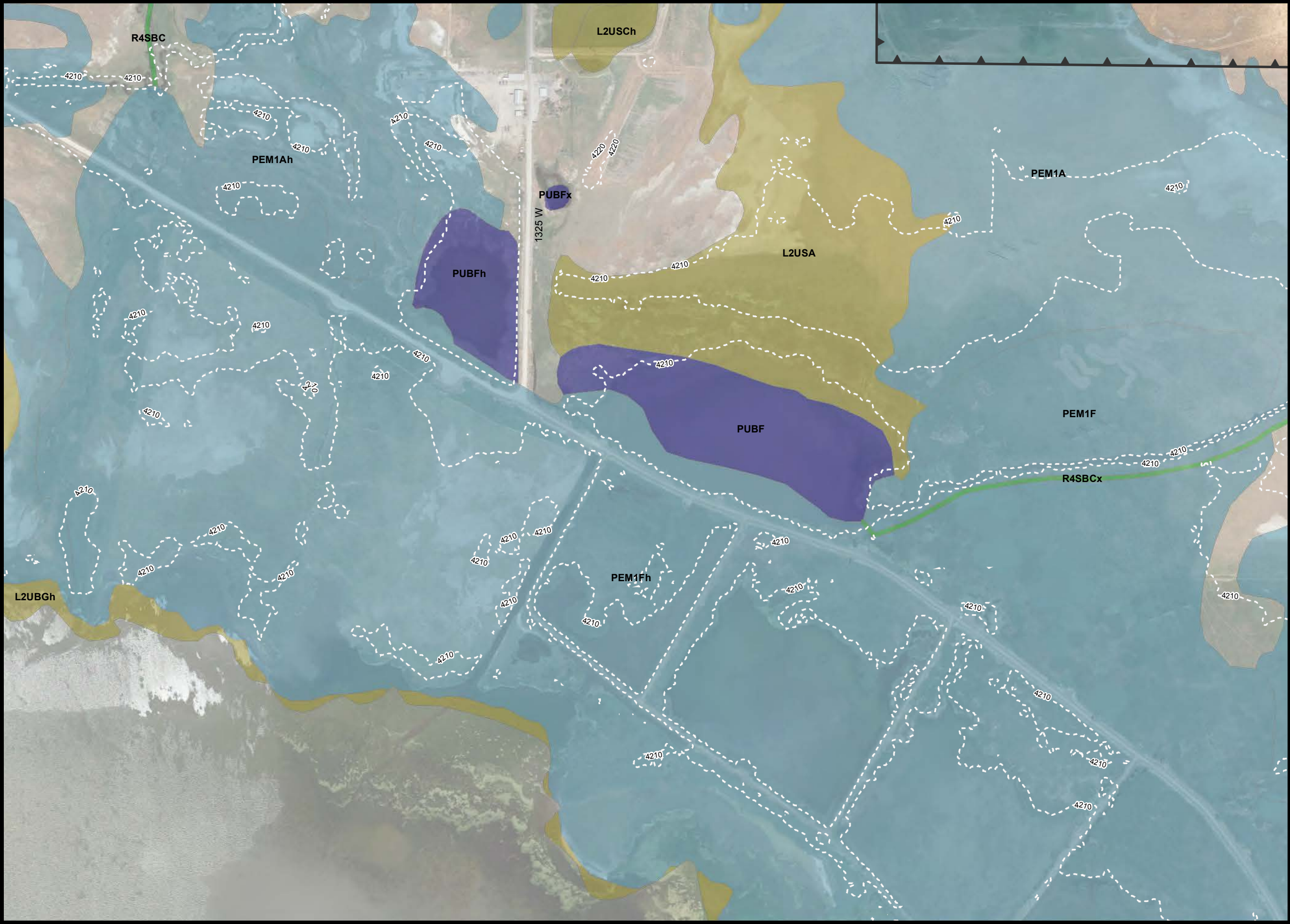
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**National Wetland Inventory Maps**

April 2017

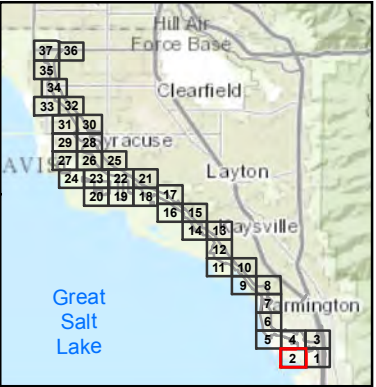
**South Region**  
Sheet 1 of 37





WEST DAVIS  
CORRIDOR

- Delineation Survey Area
- Freshwater Emergent Wetland
- Freshwater Pond
- Lake
- Riverine
- Contours



1 inch = 400 feet



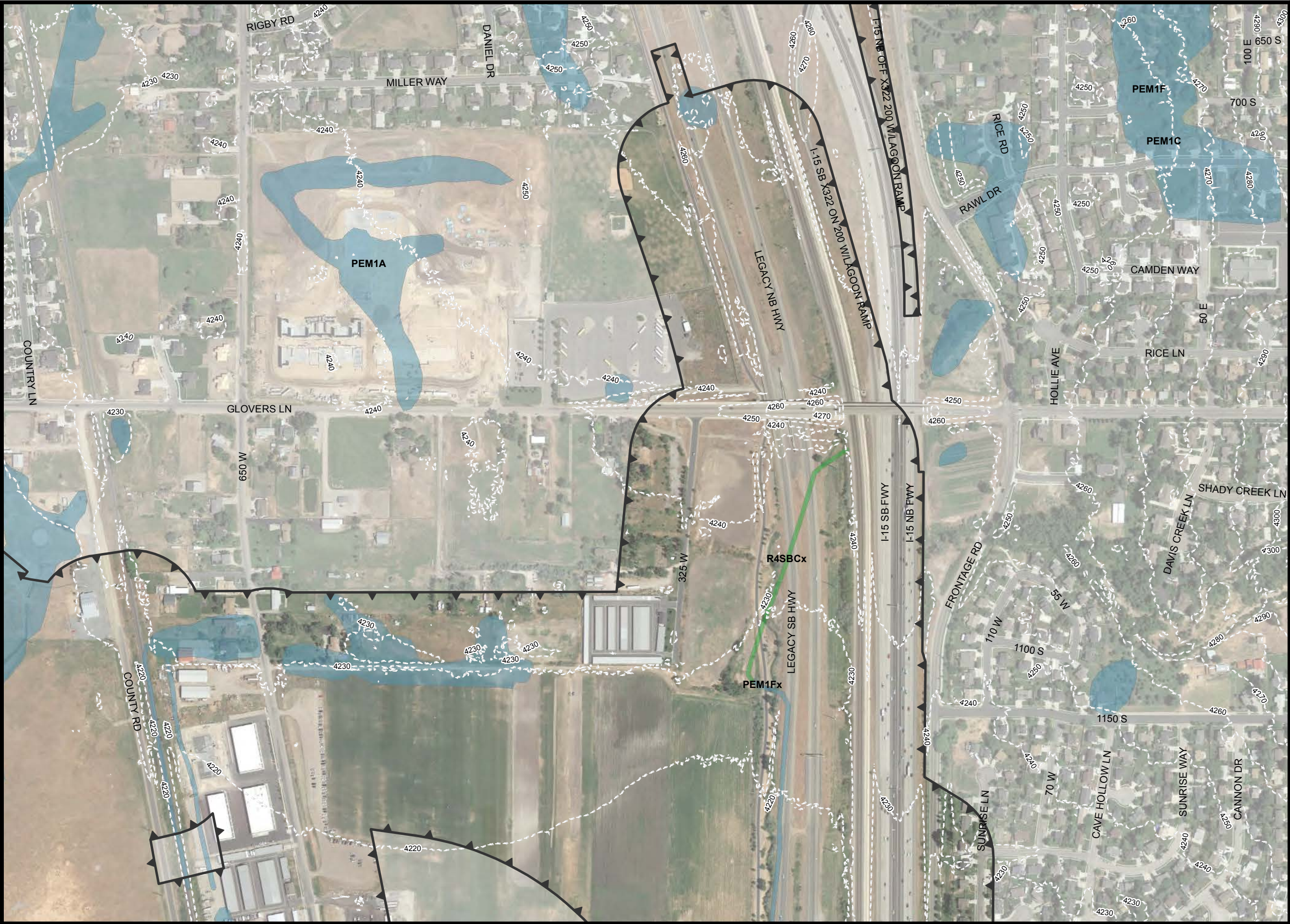
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South Region  
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**WEST DAVIS  
CORRIDOR**

- Delineation Survey
- Freshwater Emergent Wetland
- Riverine
- Contours



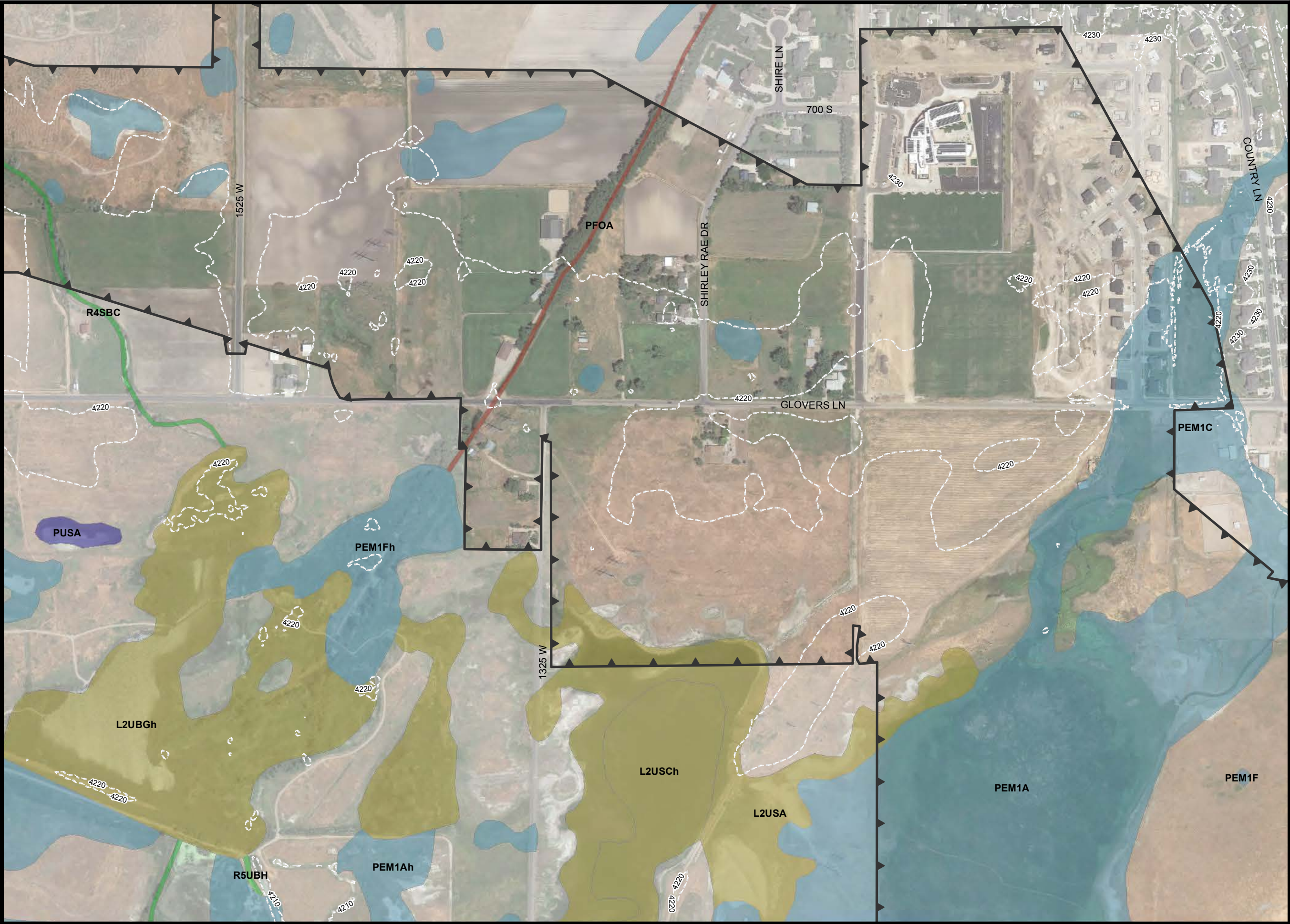
1 inch = 400 feet  
  
Feet  
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**National Wetland  
Inventory Maps**

April 2017

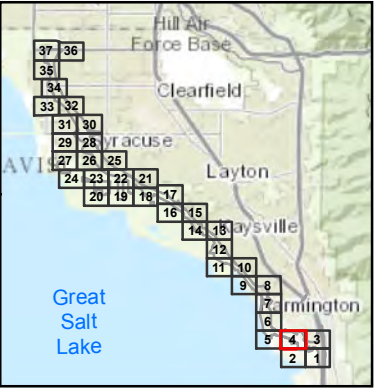
**South Region**  
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**WEST DAVIS  
CORRIDOR**

- Delineation Survey Area
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Riverine
- Contours



1 inch = 400 feet

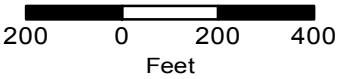


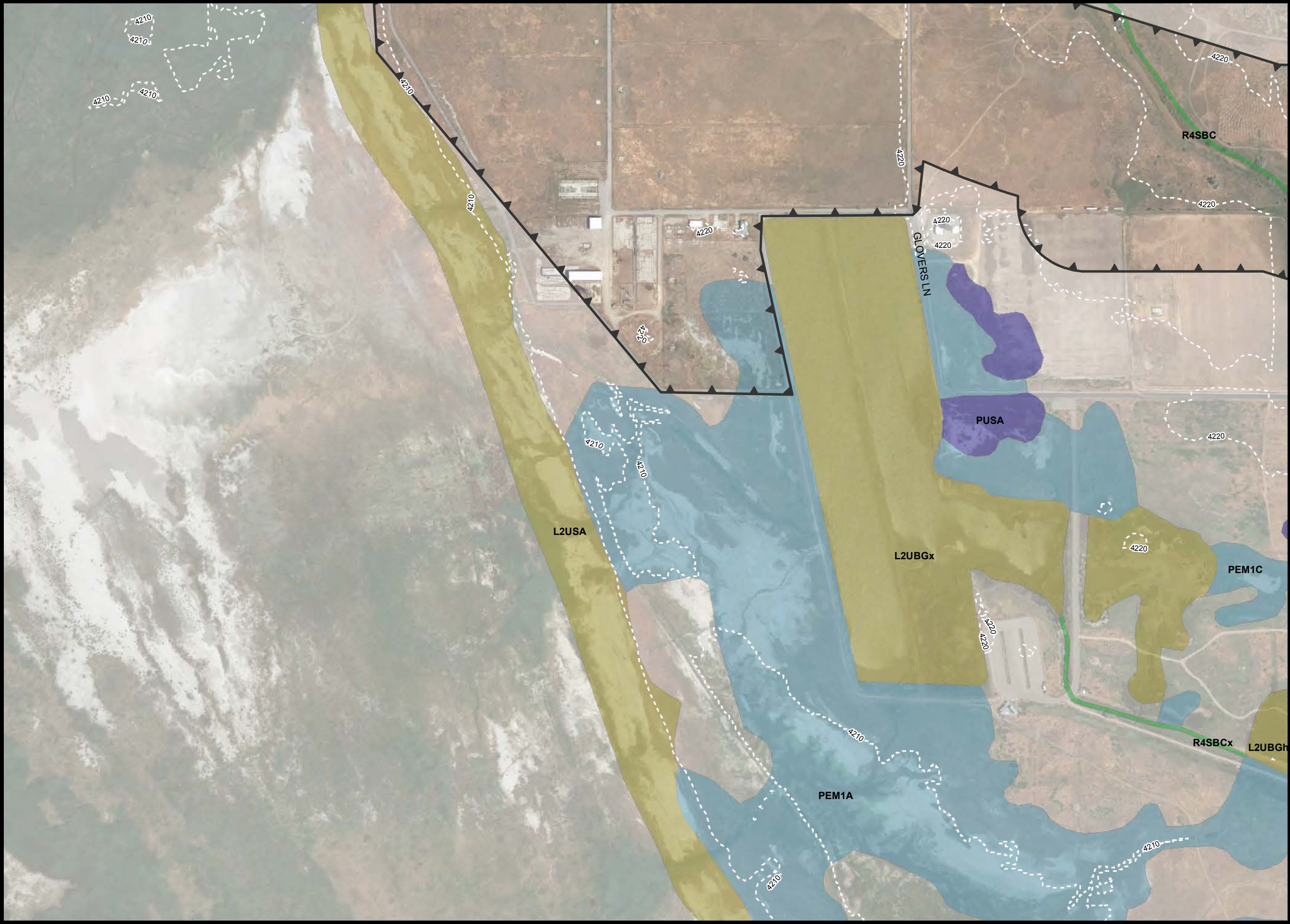
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**WEST DAVIS**  
CORRIDOR

 Delineation Survey Area

 Freshwater Emergent Wetland

 Freshwater Pond

 Lake

 Riverine

 Contours



Great Salt Lake

  
1 inch = 400 feet

  
200 0 200 400  
Feet

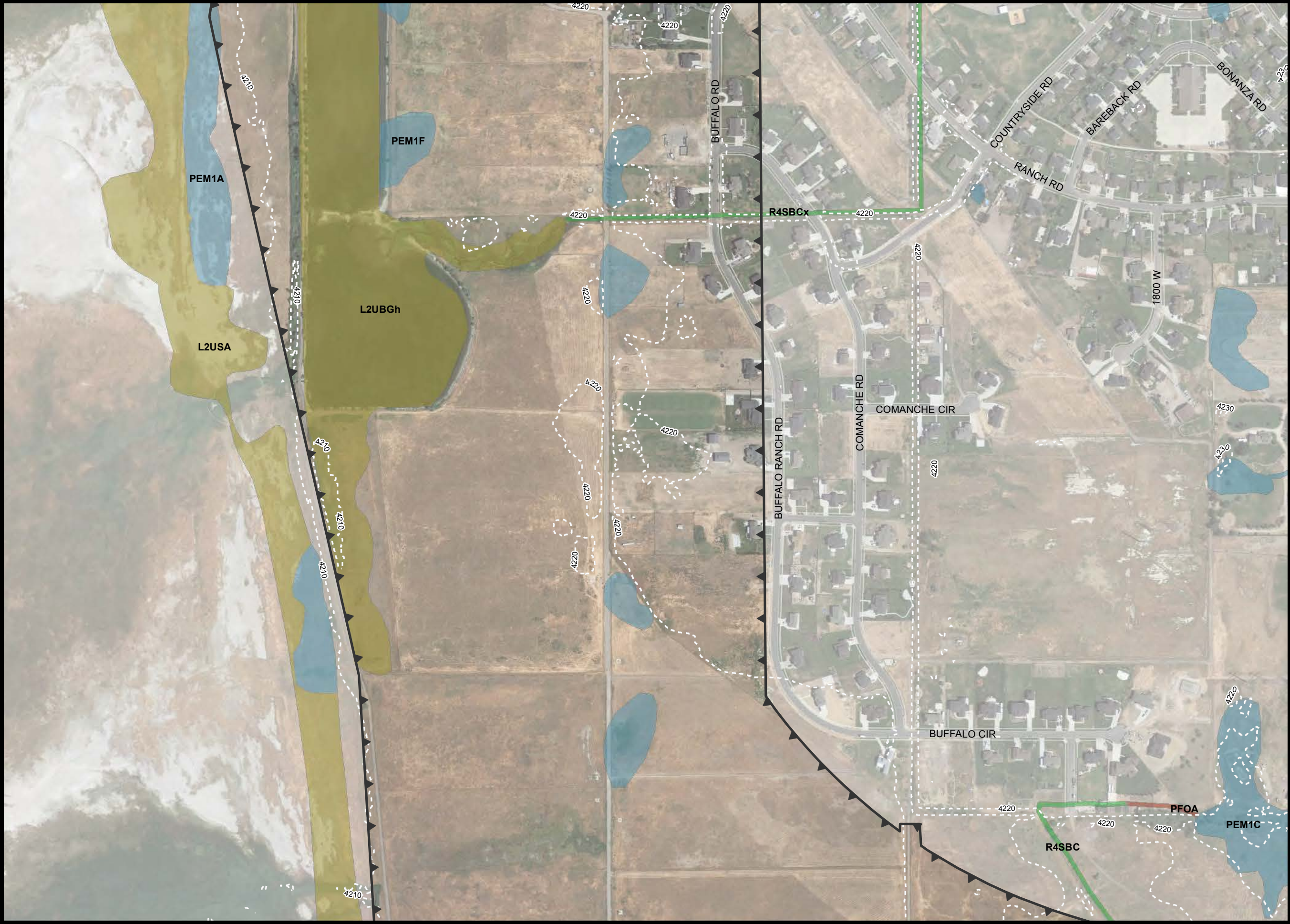
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**National Wetland Inventory Maps**

April 2017

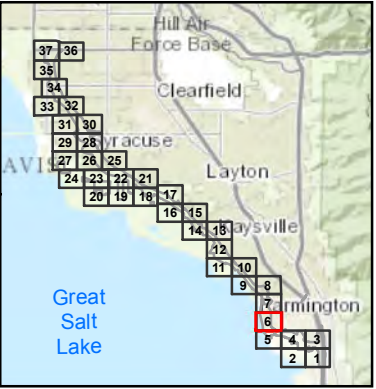
**South Region**  
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**WEST DAVIS  
CORRIDOR**

- Delineation Survey
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Lake
- Riverine
- Contours



1 inch = 400 feet

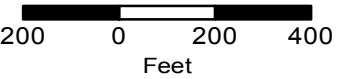


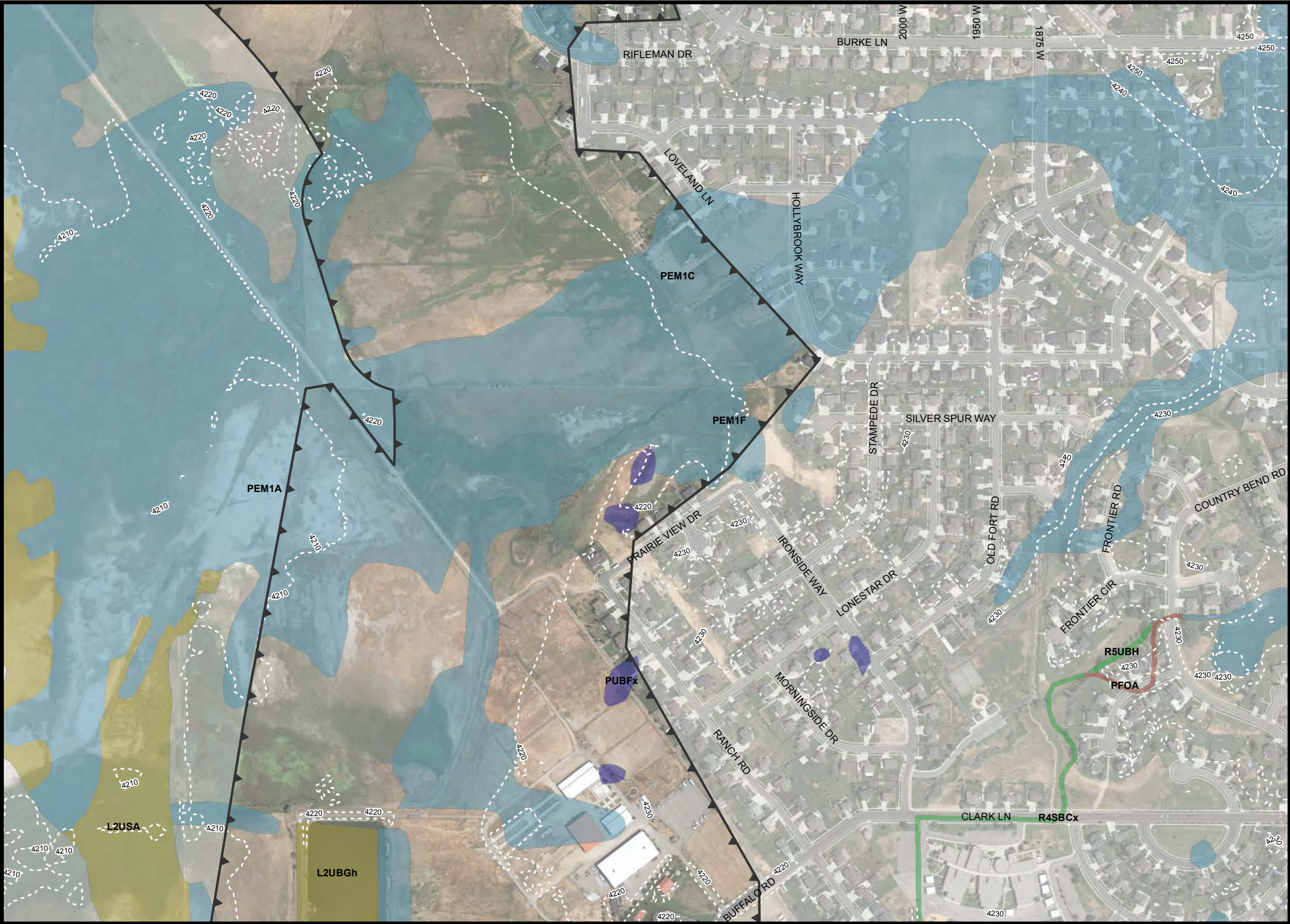
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Inventory Maps**

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**WEST DAVIS**  
CORRIDOR

-  Delineation Survey Area
-  Freshwater Emergent Wetland
-  Freshwater Forested/Shrub Wetland
-  Freshwater Pond
-  Lake
-  Riverine
-  Contors





1 inch = 400 feet



200 0 200 400  
Feet

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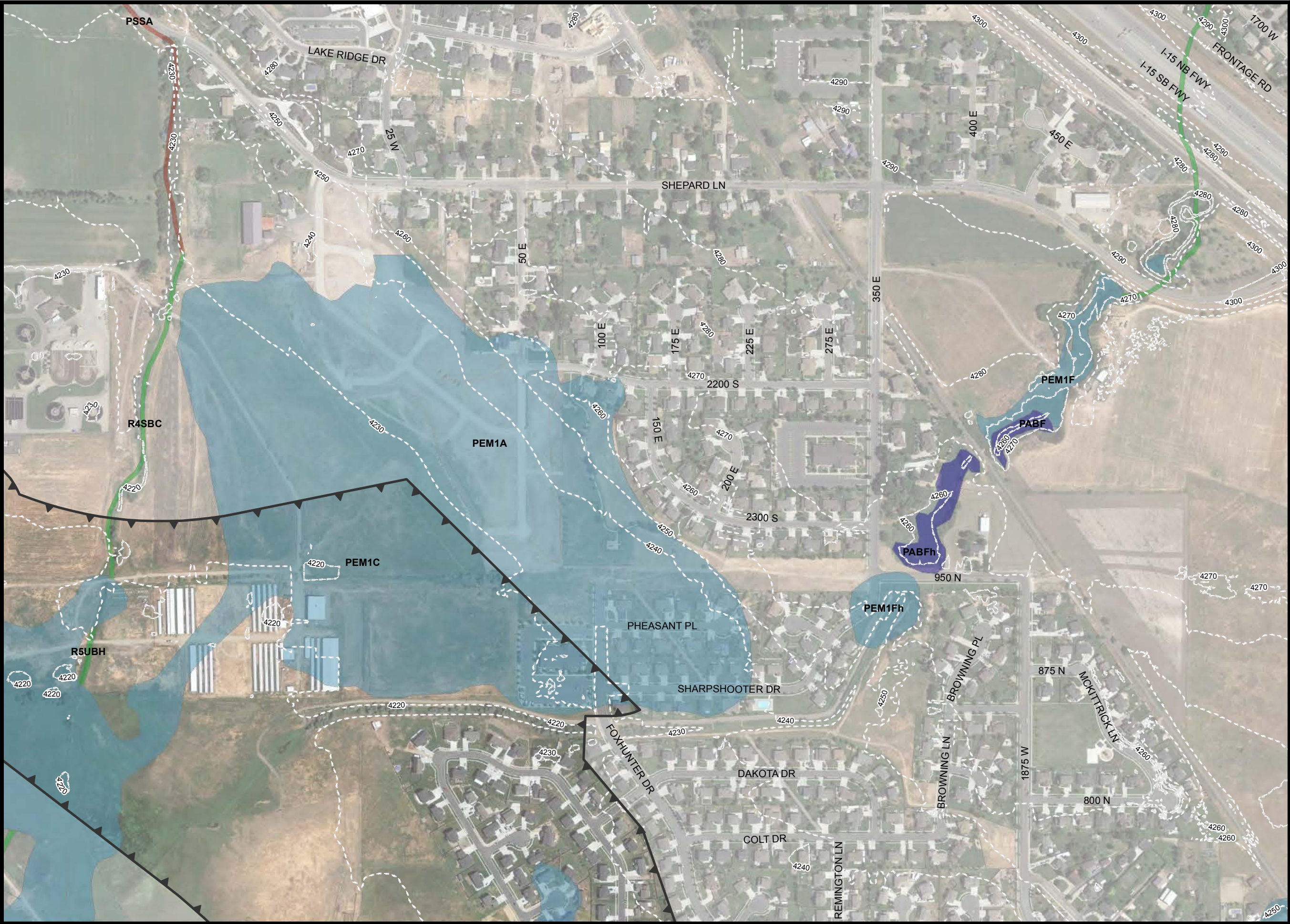
**National Wetland Inventory Maps**

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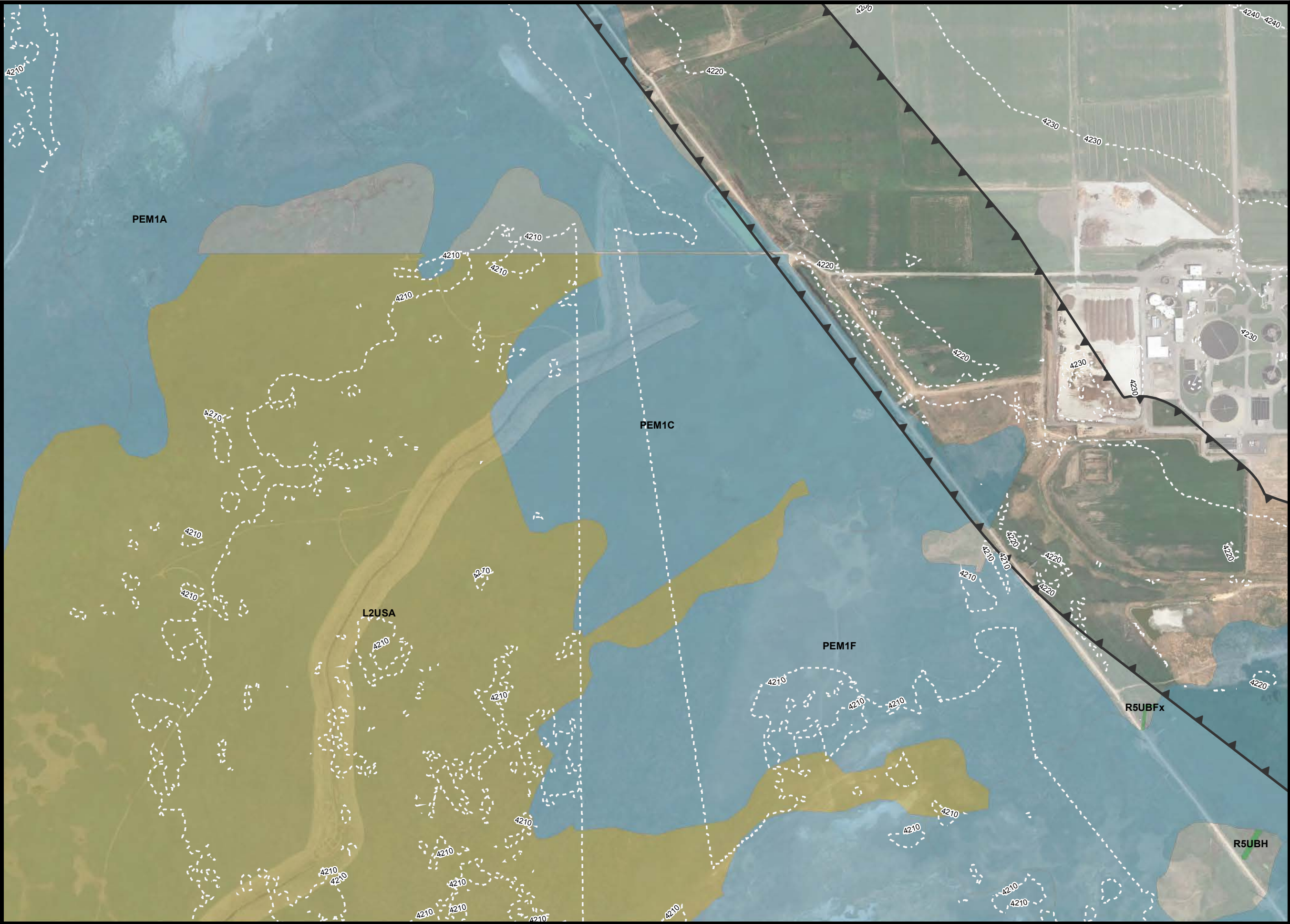
**South Region**

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**WEST DAVIS**  
CORRIDOR

 Delineation Survey Area

 Freshwater Emergent Wetland

 Lake

 Riverine

 Contors



Great Salt Lake



1 inch = 400 feet

  
200 0 200 400  
Feet

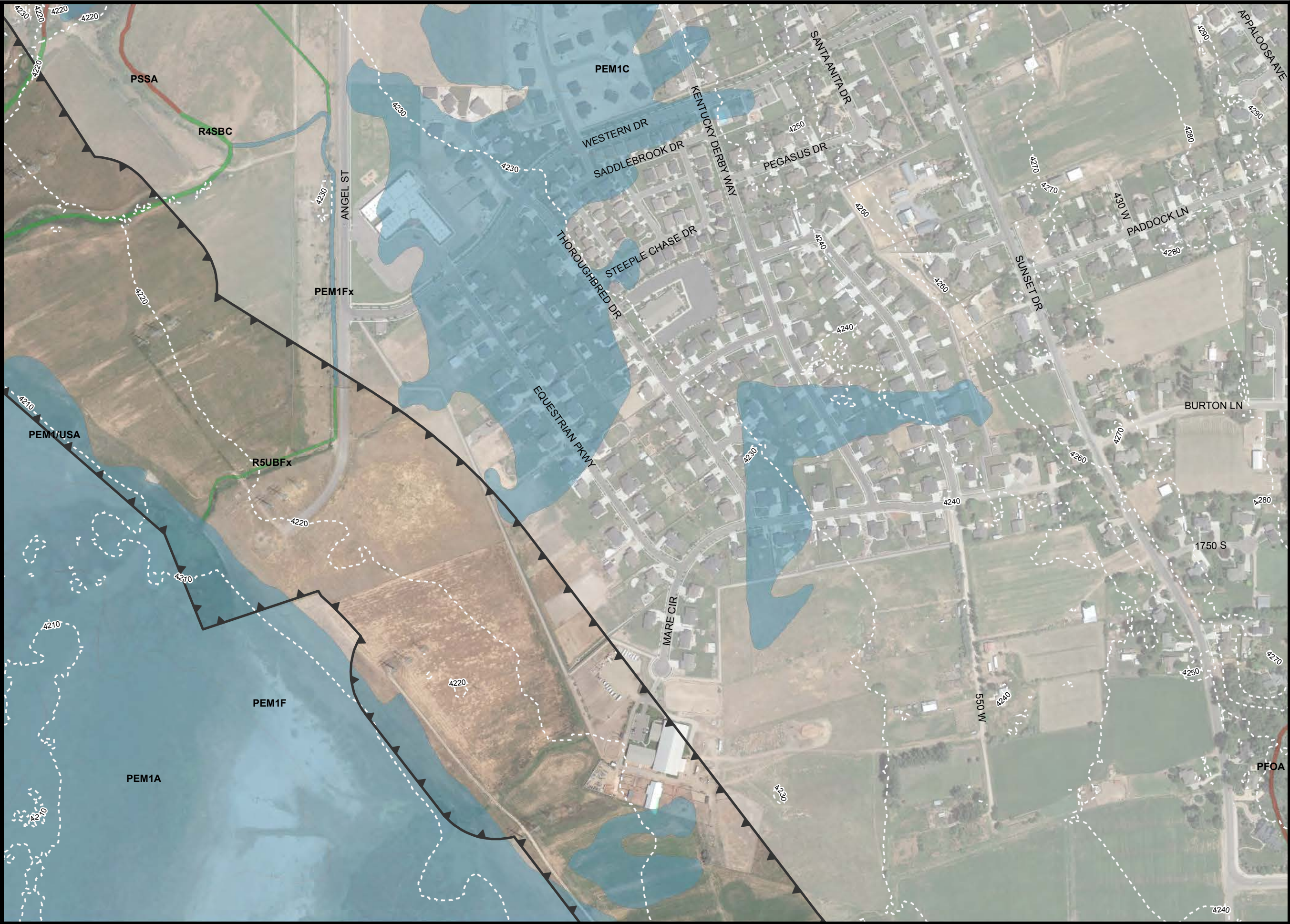
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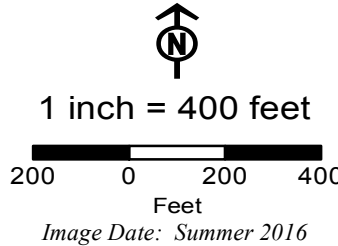
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# WEST DAVIS CORRIDOR

-  Delineation Survey Area
-  Freshwater Emergent Wetland
-  Freshwater Forested/Shrub Wetland
-  Riverine
-  Contours

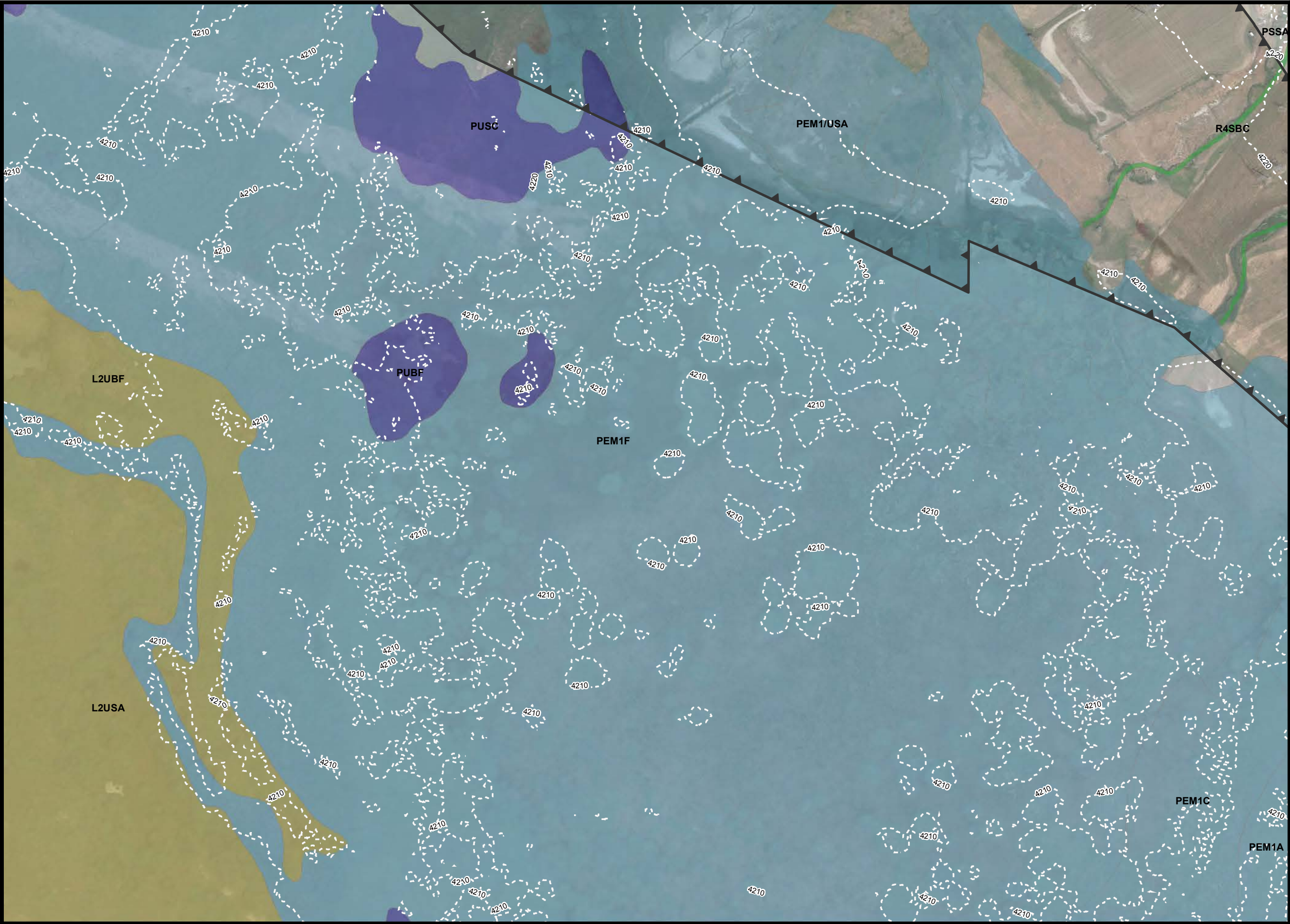


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April 2017

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**WEST DAVIS**  
CORRIDOR

Delineation Survey

Freshwater Emergent Wetland

Freshwater Forested/Shrub Wetland

Freshwater Pond

Lake

Riverine

Contours

Great Salt Lake

1 inch = 400 feet

200 0 200 400  
Feet

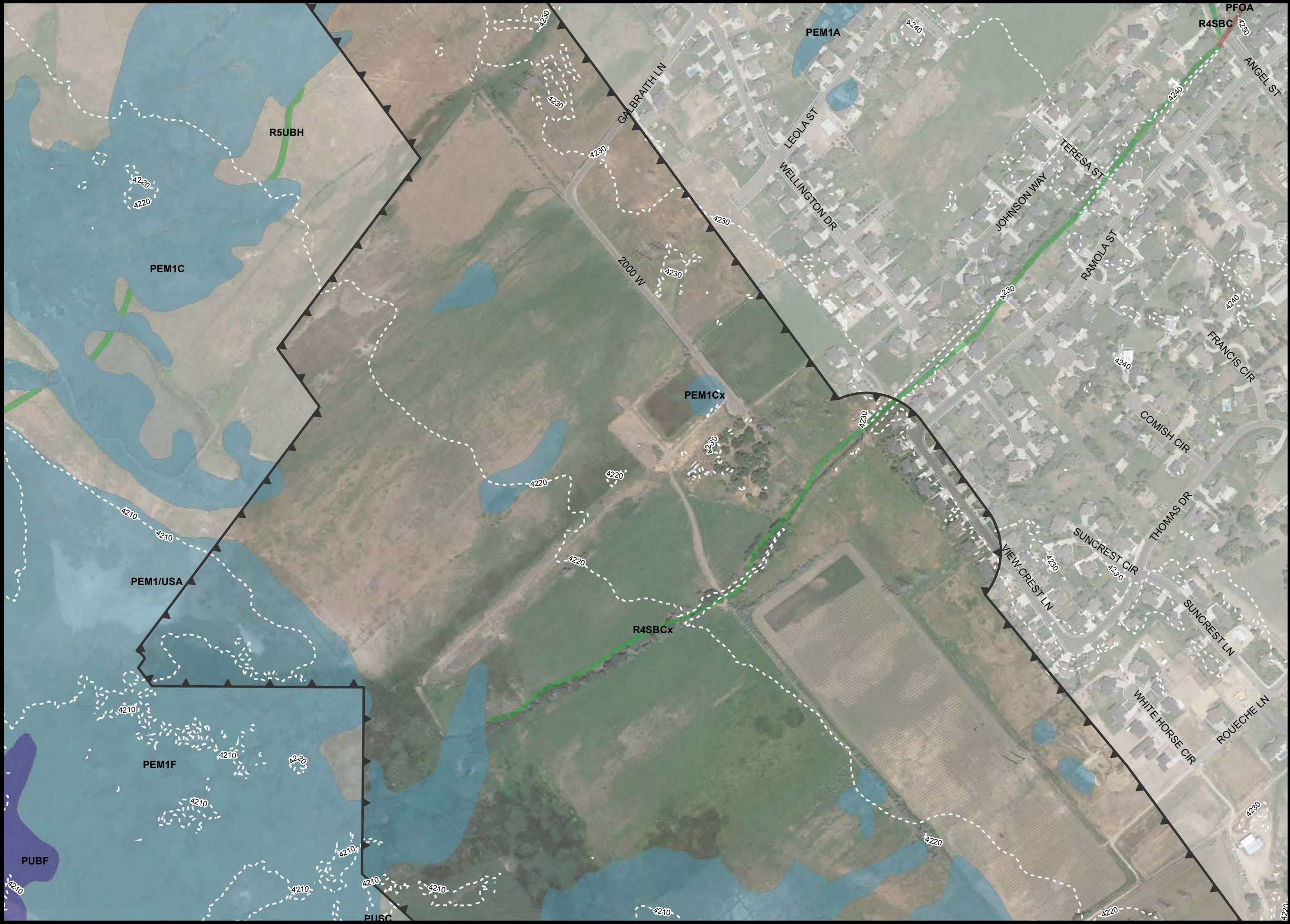
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**South Region**  
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**WEST DAVIS**  
CORRIDOR

 Delineation Survey

 Freshwater Emergent Wetland

 Freshwater Forested/Shrub Wetland

 Freshwater Pond

 Riverine

 Contours



Great Salt Lake



1 inch = 400 feet



200 0 200 400  
Feet

Image Date: Summer 2016

**National Wetland Inventory Maps**

April 2017






**South Region**

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## WEST DAVIS CORRIDOR

-  Delineation Survey Area
-  Freshwater Emergent Wetland
-  Freshwater Forested/Shrub Wetland
-  Riverine
-  Contors



1 inch = 400 feet



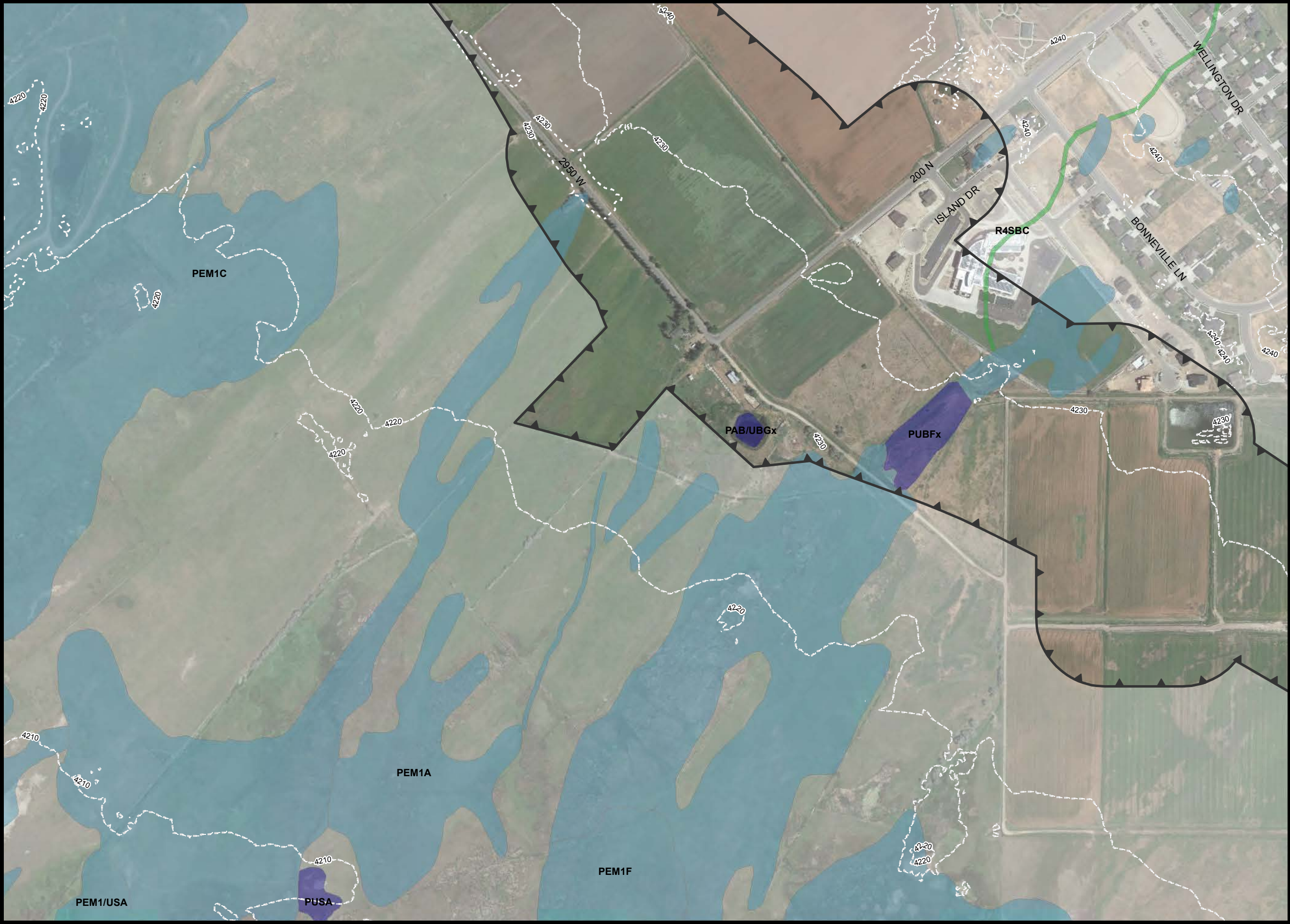
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### National Wetland Inventory Maps






April 2017

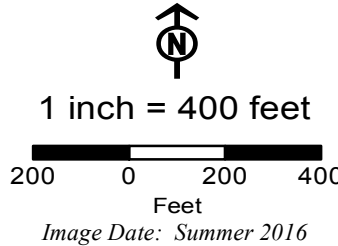
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**WEST DAVIS  
CORRIDOR**

-  Delineation Survey
-  Freshwater Emergent Wetland
-  Freshwater Pond
-  Riverine
-  Contours



**National Wetland  
Inventory Maps**





April 2017

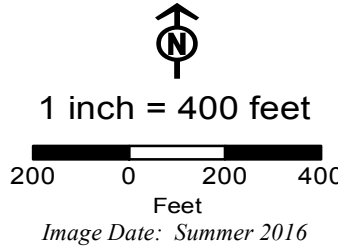
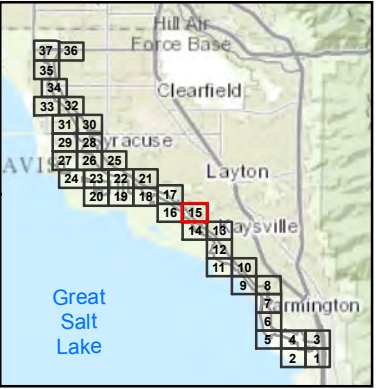
**South Region**  
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**WEST DAVIS  
CORRIDOR**

-  Delineation Survey Area
-  Freshwater Emergent Wetland
-  Riverine
-  Contours

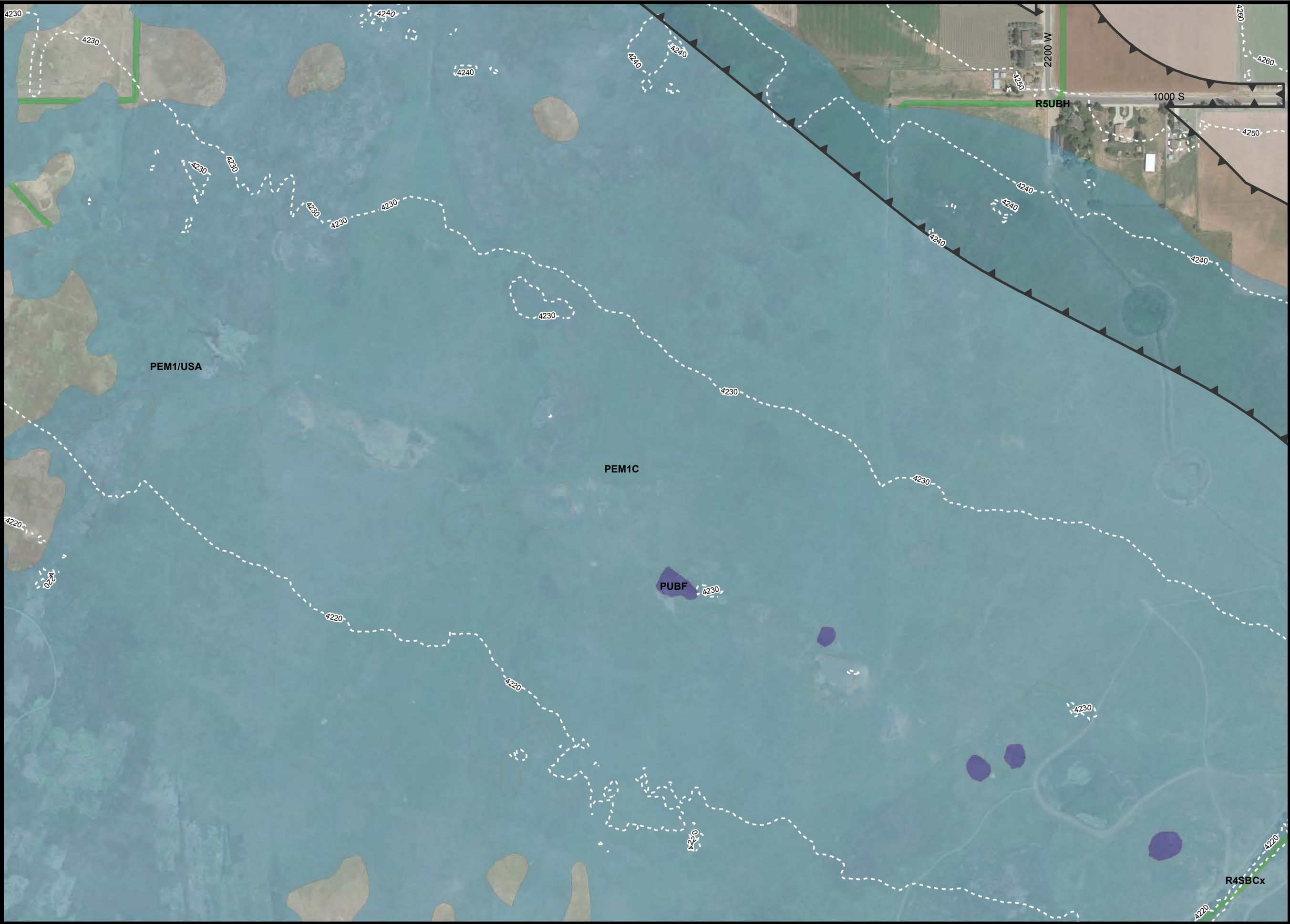


**National Wetland  
Inventory Maps**






April 2017

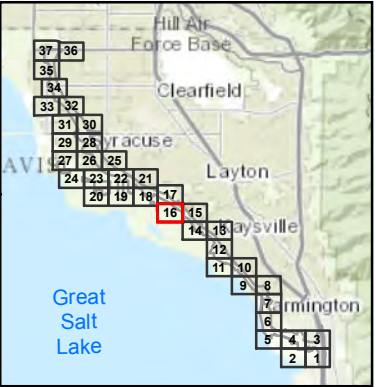
**Central Region**  
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**WEST DAVIS  
CORRIDOR**

-  Delineation Survey Area
-  Freshwater Emergent Wetland
-  Freshwater Pond
-  Riverine
-  Contours



1 inch = 400 feet



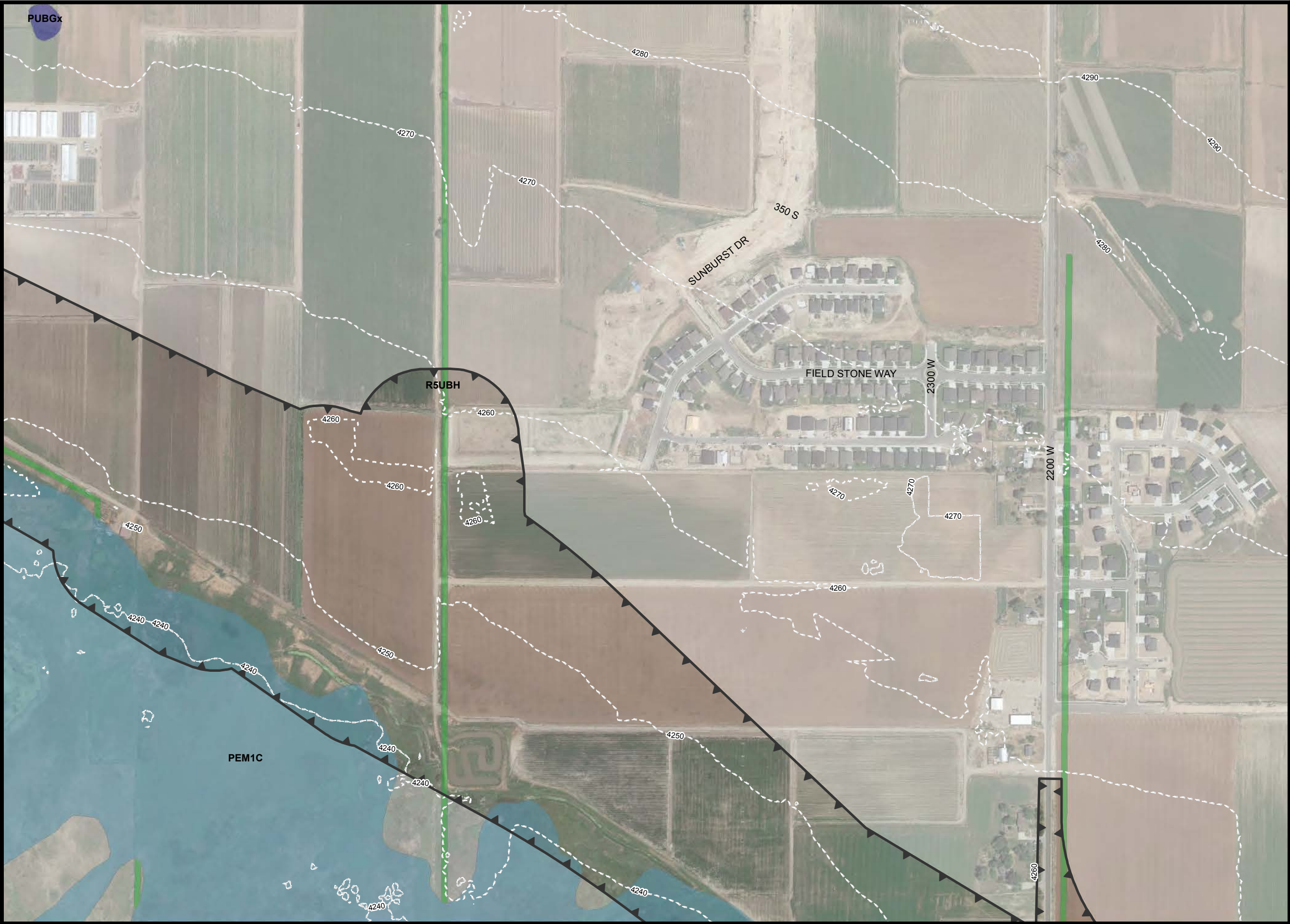
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Inventory Maps**






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**Central Region**  
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**WEST DAVIS  
CORRIDOR**

-  Delineation Survey Area
-  Freshwater Emergent Wetland
-  Freshwater Pond
-  Riverine
-  Contors



1 inch = 400 feet

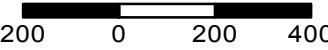


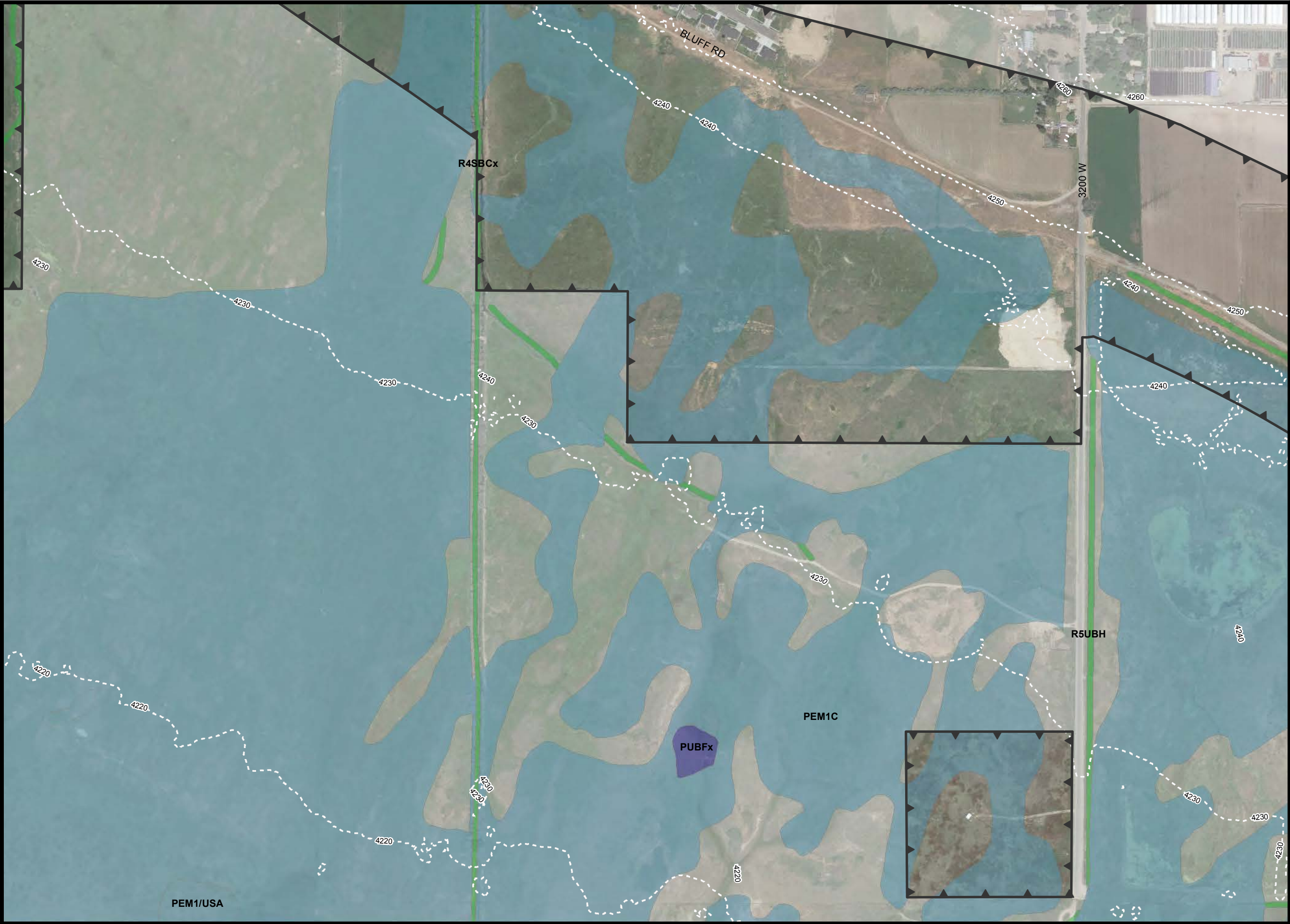
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Inventory Maps**

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**WEST DAVIS**  
CORRIDOR

 Delineation Survey Area

 Freshwater Emergent Wetland

 Freshwater Pond

 Riverine

 Contours



Great Salt Lake



1 inch = 400 feet

  
200 0 200 400  
Feet

Image Date: Summer 2016

**National Wetland Inventory Maps**







April 2017

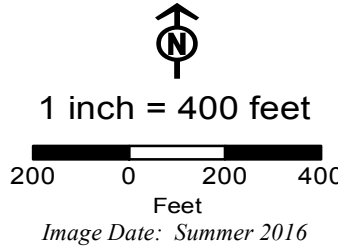
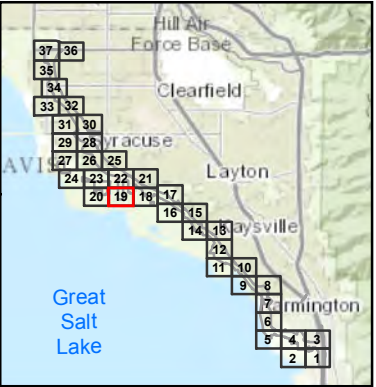
**Central Region**  
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**WEST DAVIS  
CORRIDOR**

-  Delineation Survey Area
-  Freshwater Emergent Wetland
-  Freshwater Pond
-  Lake
-  Riverine
-  Contours

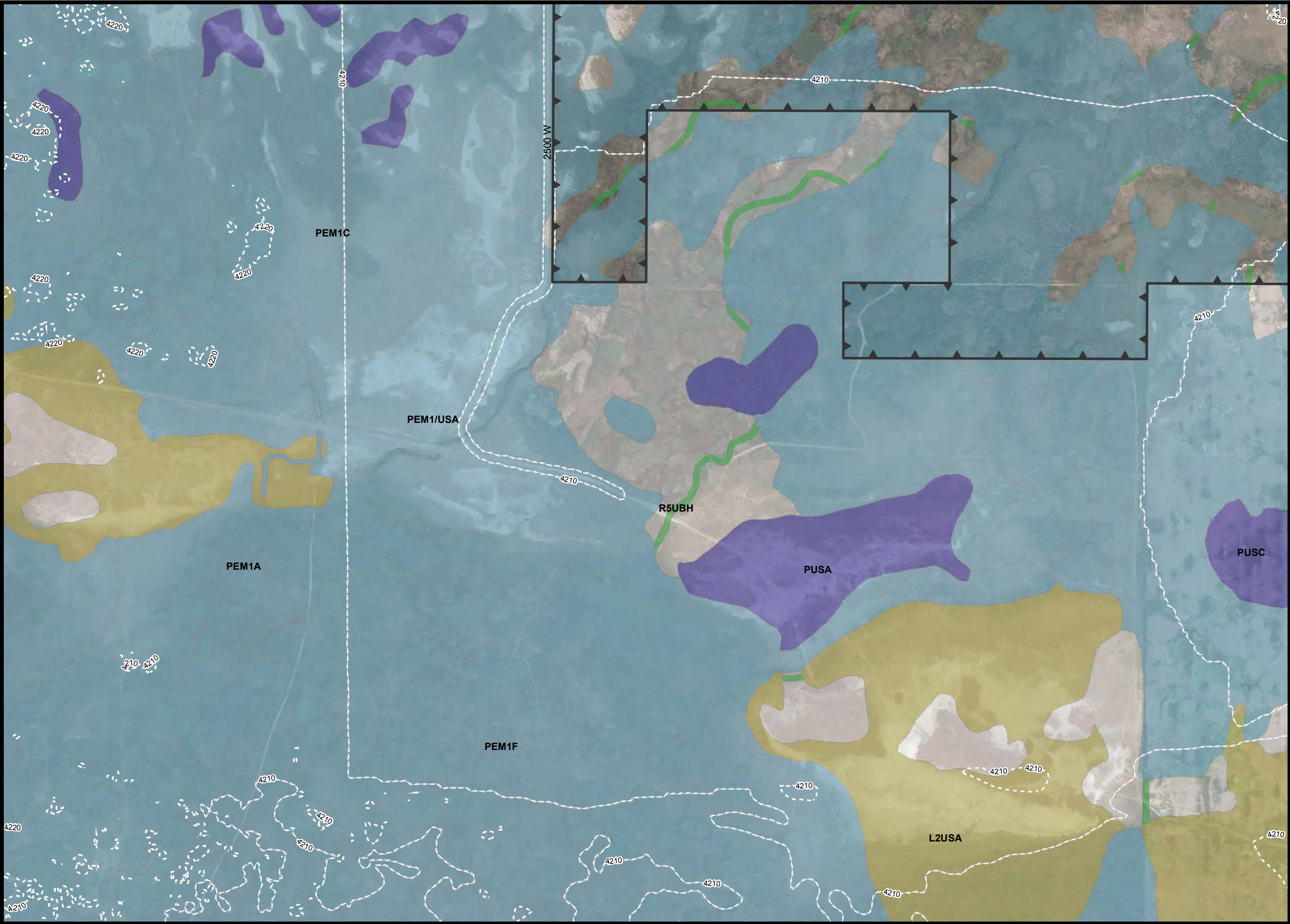


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**WEST DAVIS  
CORRIDOR**

 Delineation Survey

 Freshwater Emergent Wetland

 Freshwater Pond

 Lake

 Riverine

 Contours



Great Salt Lake



1 inch = 400 feet



200 0 200 400  
Feet

Image Date: Summer 2016

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**WEST DAVIS  
CORRIDOR**

 Delineation Survey

 Freshwater Emergent Wetland

 Freshwater Pond

 Riverine

 Contours



Great Salt Lake



1 inch = 400 feet



200 0 200 400 Feet

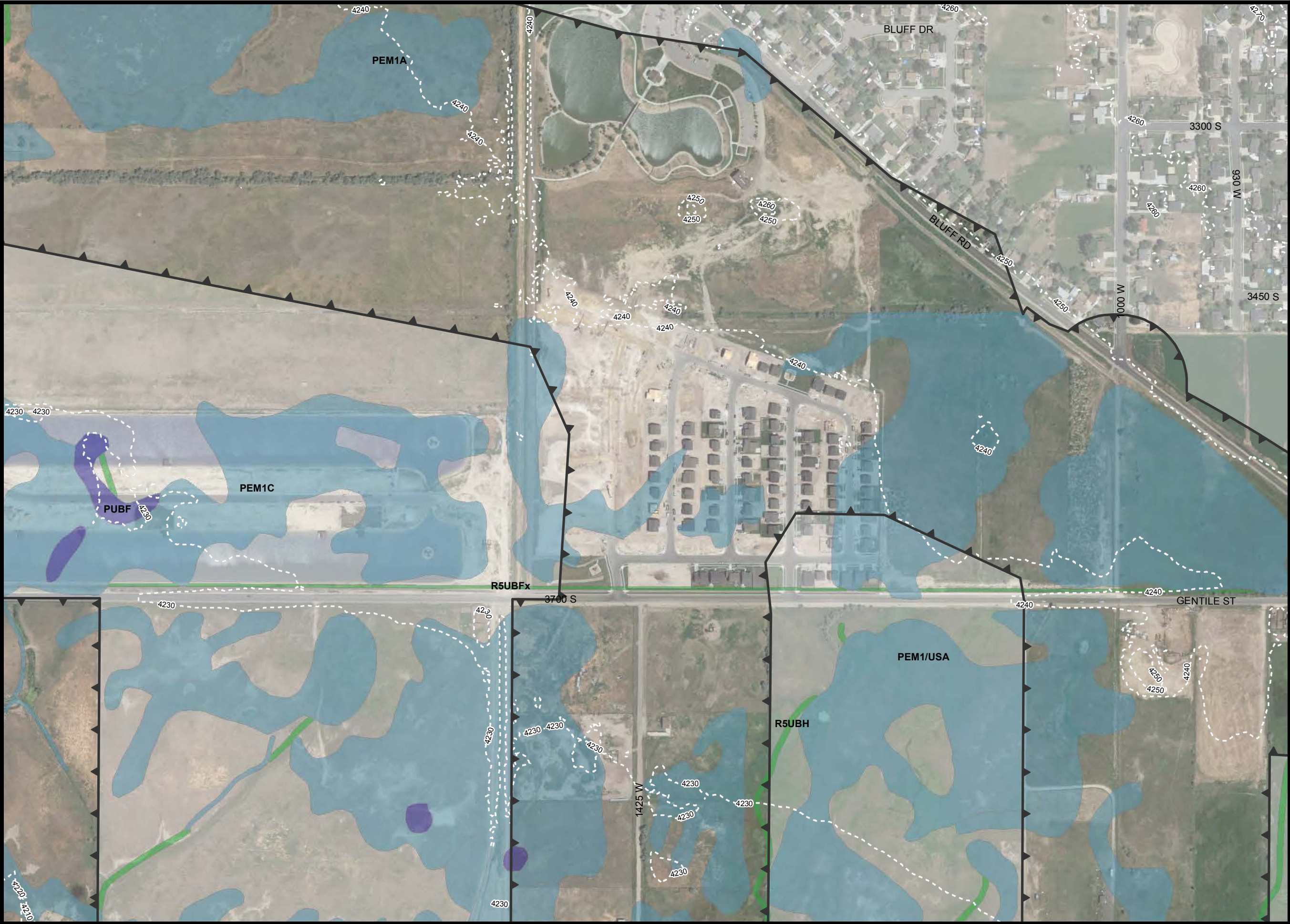
Image Date: Summer 2016

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# WEST DAVIS CORRIDOR

-  Delineation Survey Area
-  Freshwater Emergent Wetland
-  Freshwater Pond
-  Riverine
-  Contours



1 inch = 400 feet



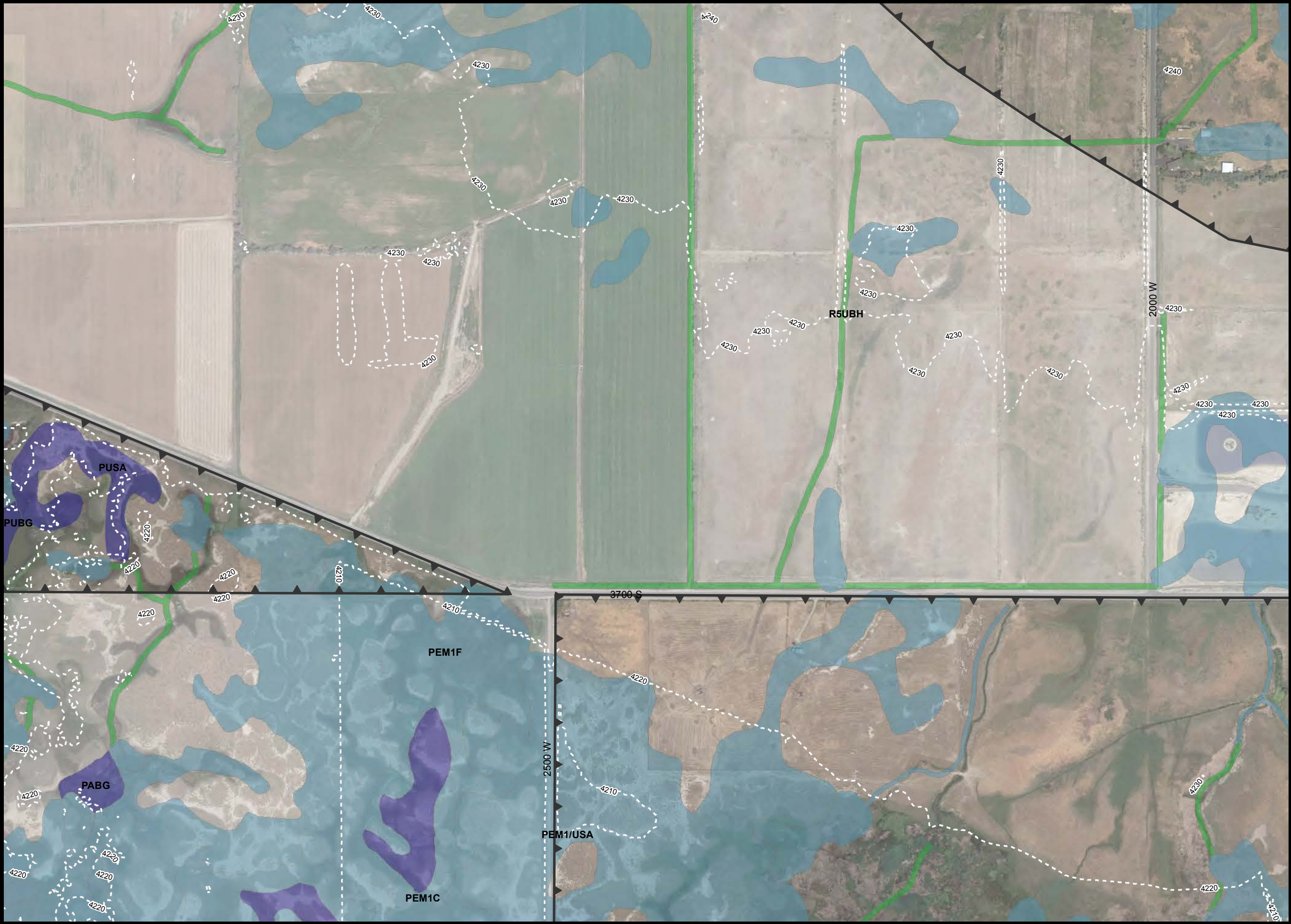
Image Date: Summer 2016

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**WEST DAVIS**  
CORRIDOR

 Delineation Survey Area

 Freshwater Emergent Wetland

 Freshwater Pond

 Riverine

 Contours





1 inch = 400 feet

  
200 0 200 400  
Feet

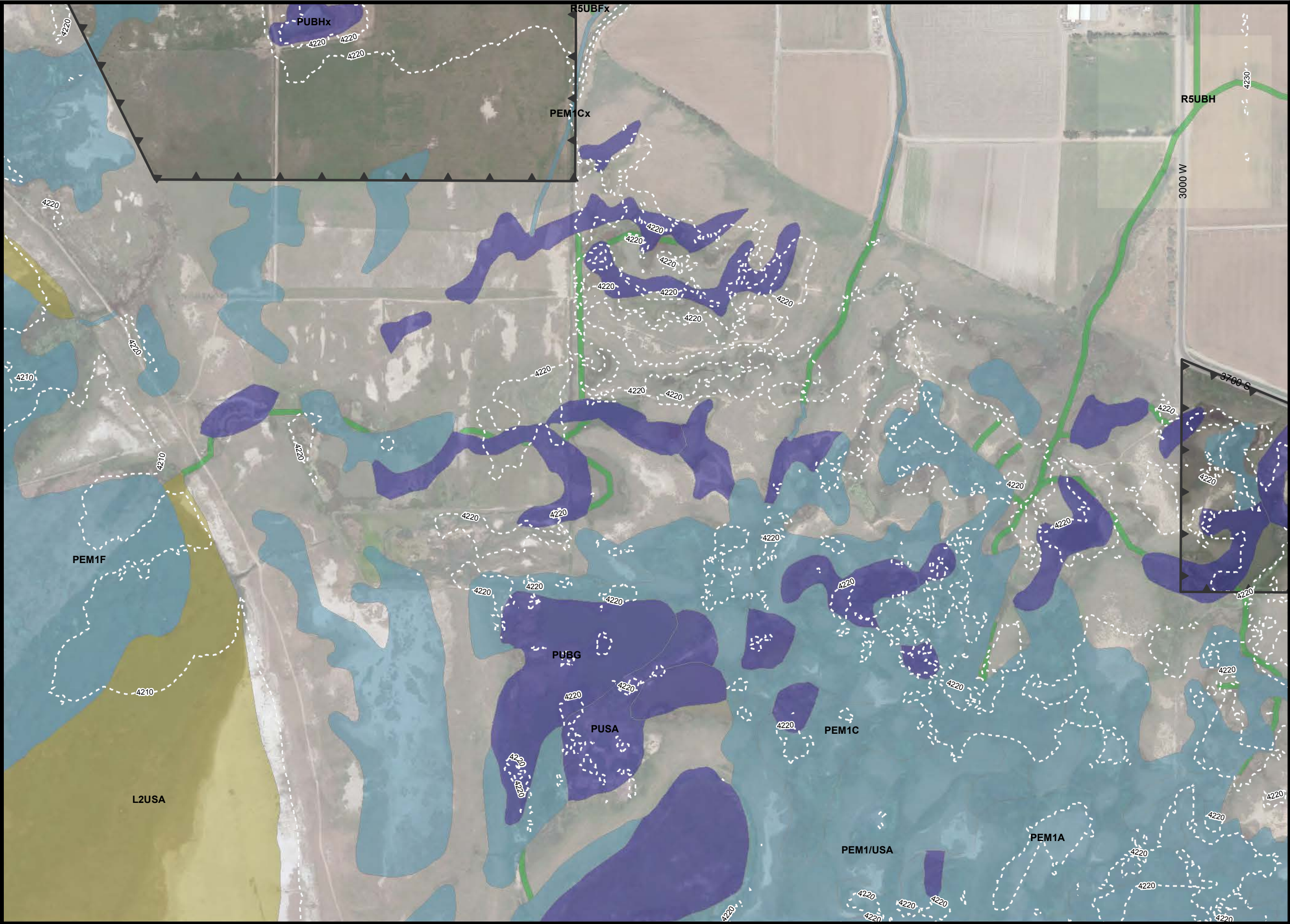
Image Date: Summer 2016

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**WEST DAVIS**  
CORRIDOR

Delineation Survey Area

Freshwater Emergent Wetland

Freshwater Pond

Lake

Riverine

Contours

1 inch = 400 feet

Image Date: Summer 2016

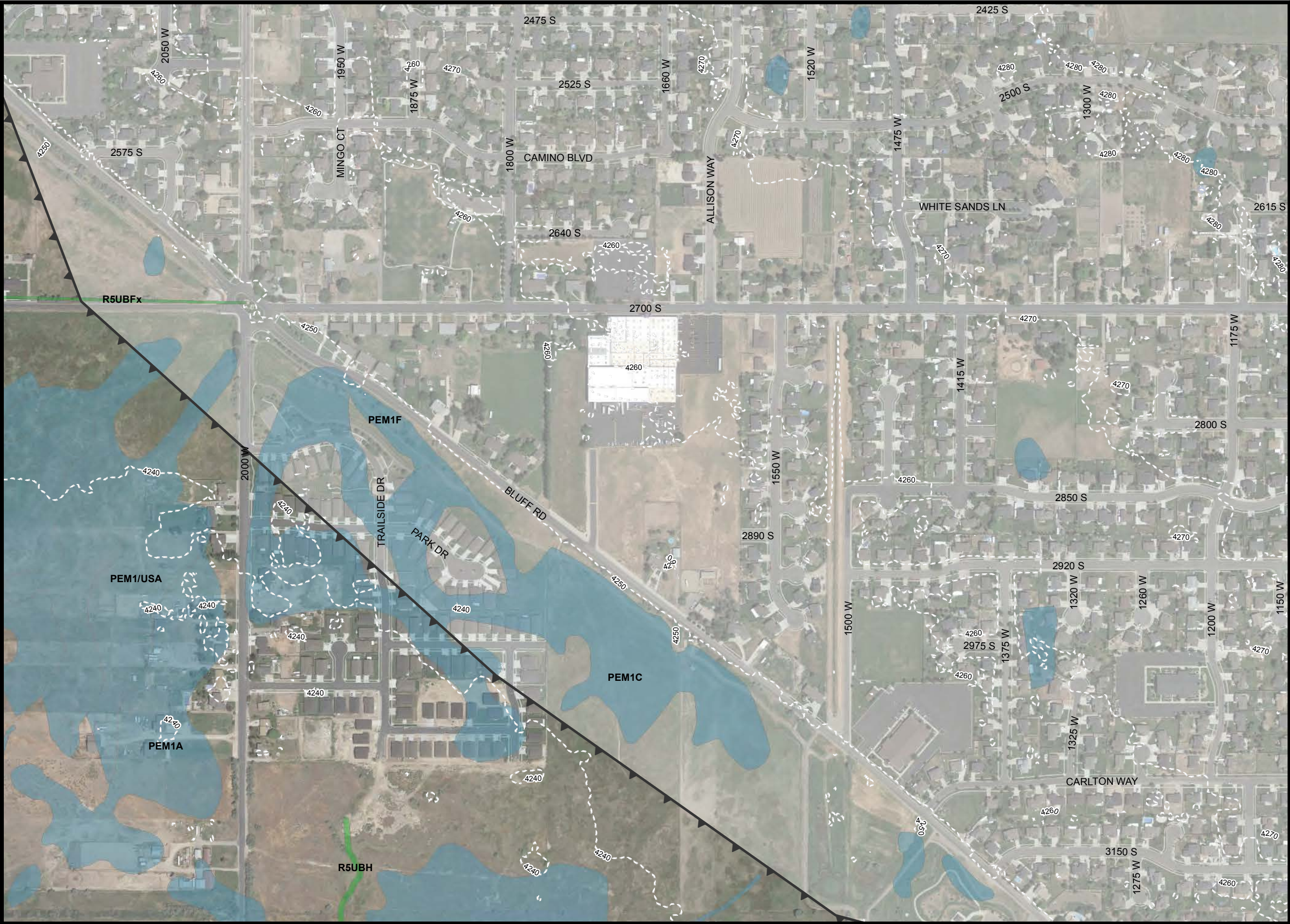
**National Wetland Inventory Maps**

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**Central Region**

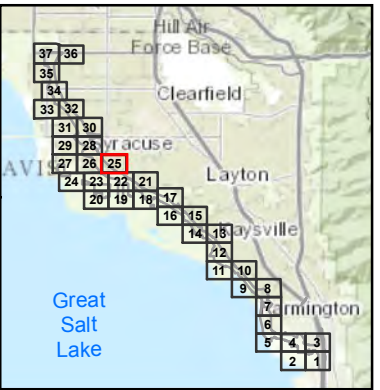
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## WEST DAVIS CORRIDOR

-  Delineation Survey
-  Freshwater Emergent Wetland
-  Riverine
-  Contours



1 inch = 400 feet



Image Date: Summer 2016

### National Wetland Inventory Maps

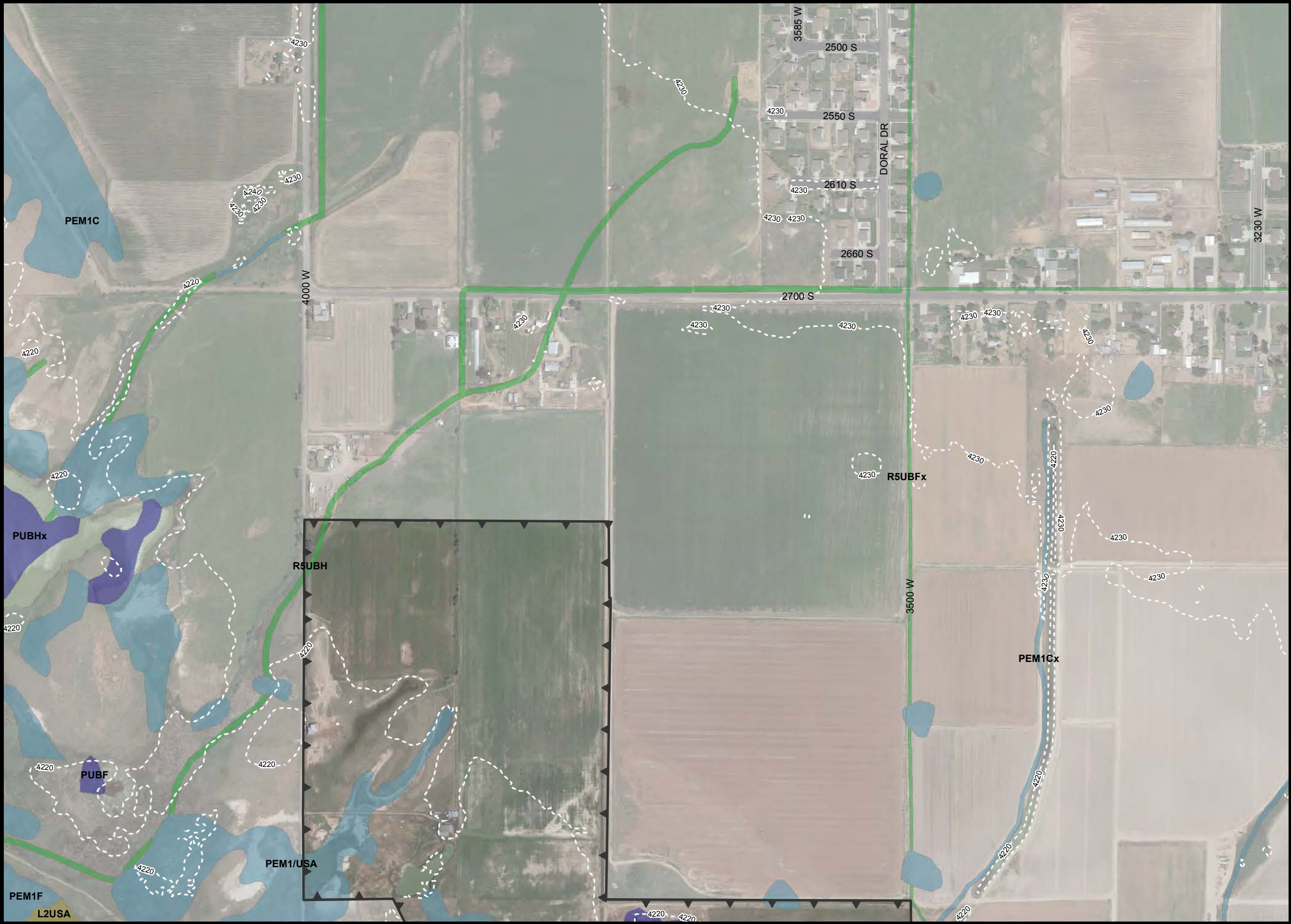
April 2017

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










**WEST DAVIS  
CORRIDOR**

-  Delineation Survey Area
-  Freshwater Emergent Wetland
-  Freshwater Pond
-  Lake
-  Riverine
-  Contours



1 inch = 400 feet

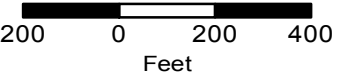


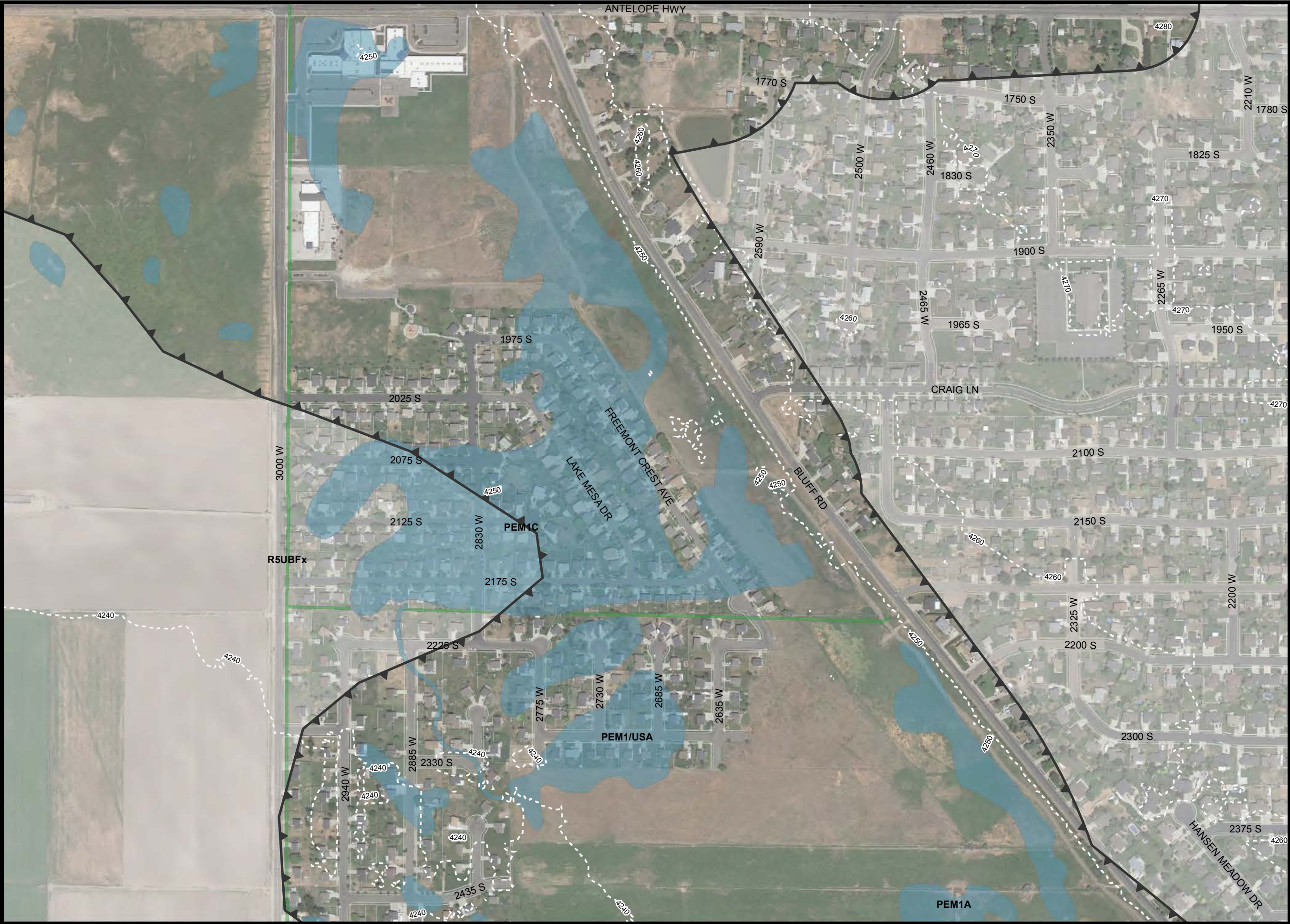
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**WEST DAVIS  
CORRIDOR**

- Delineation Survey
- Freshwater Emergent Wetland
- Riverine
- Contours



1 inch = 400 feet

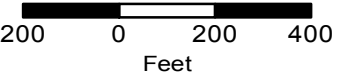


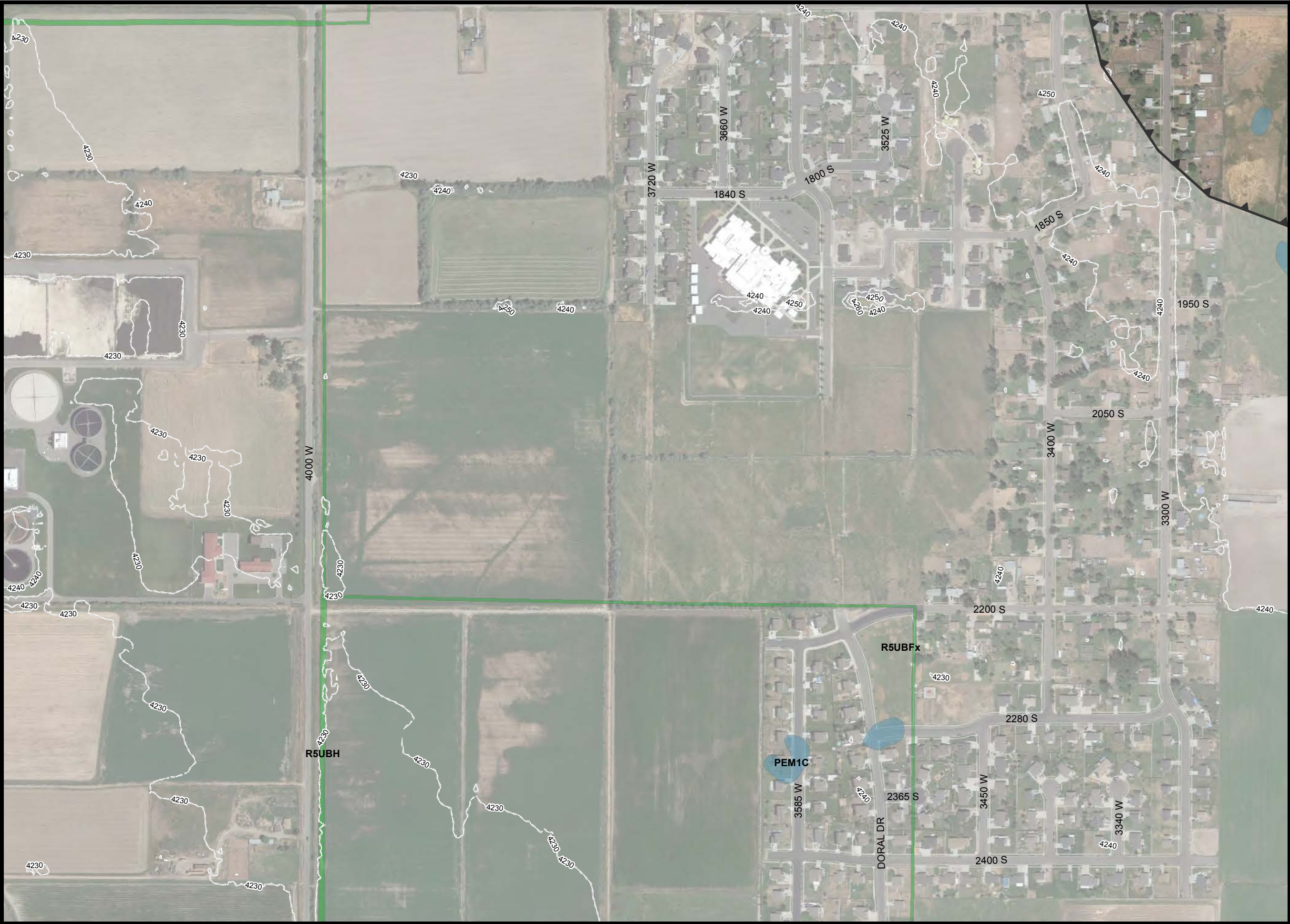
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**North Region**  
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## WEST DAVIS CORRIDOR

-  Delineation Survey Area
-  Freshwater Emergent Wetland
-  Riverine
-  Contours



1 inch = 400 feet



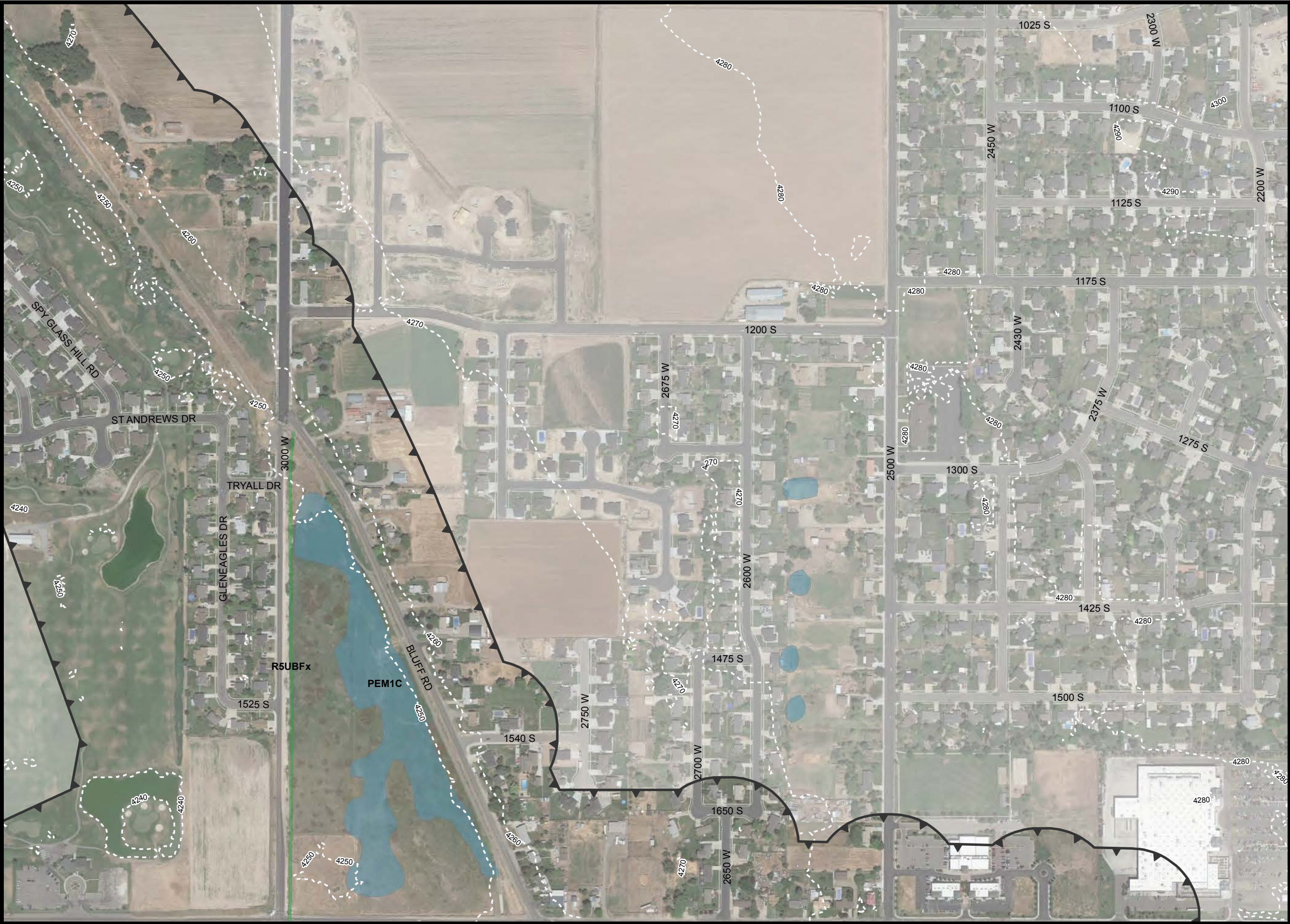
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### National Wetland Inventory Maps

April 2017

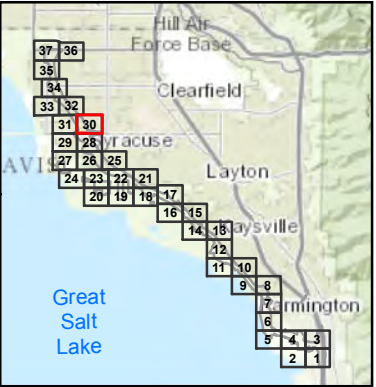
**North Region**  
Sheet 29 of 37





**WEST DAVIS  
CORRIDOR**

- Delineation Survey Area
- Freshwater Emergent Wetland
- Riverine
- Contours



1 inch = 400 feet



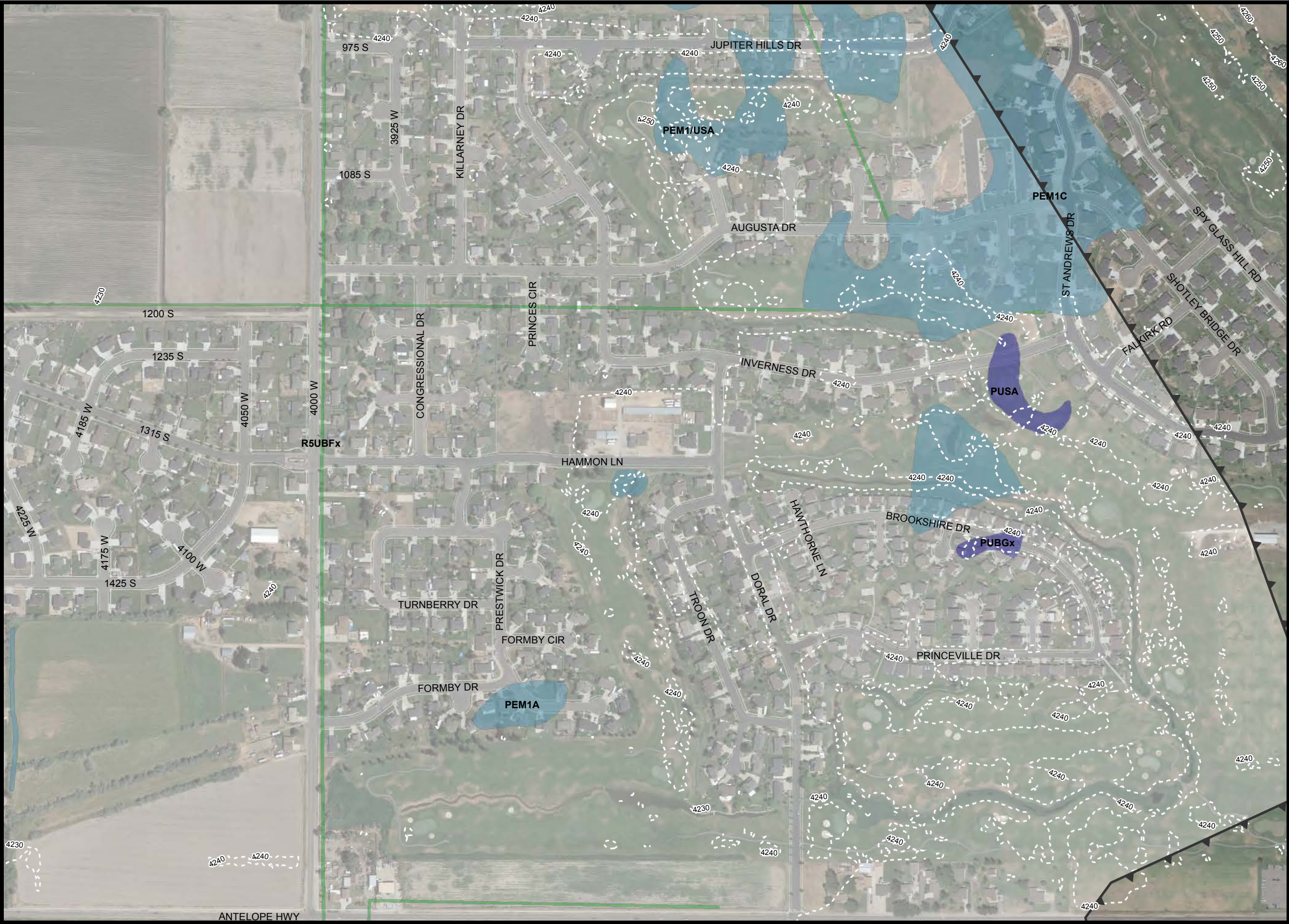
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**National Wetland  
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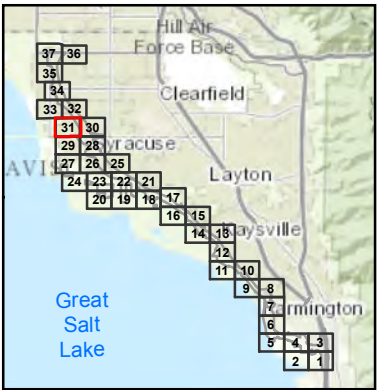
**North Region**  
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**WEST DAVIS  
CORRIDOR**

- Delineation Survey Area
- Freshwater Emergent Wetland
- Freshwater Pond
- Riverine
- Contours



1 inch = 400 feet

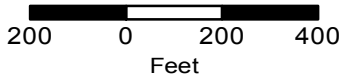


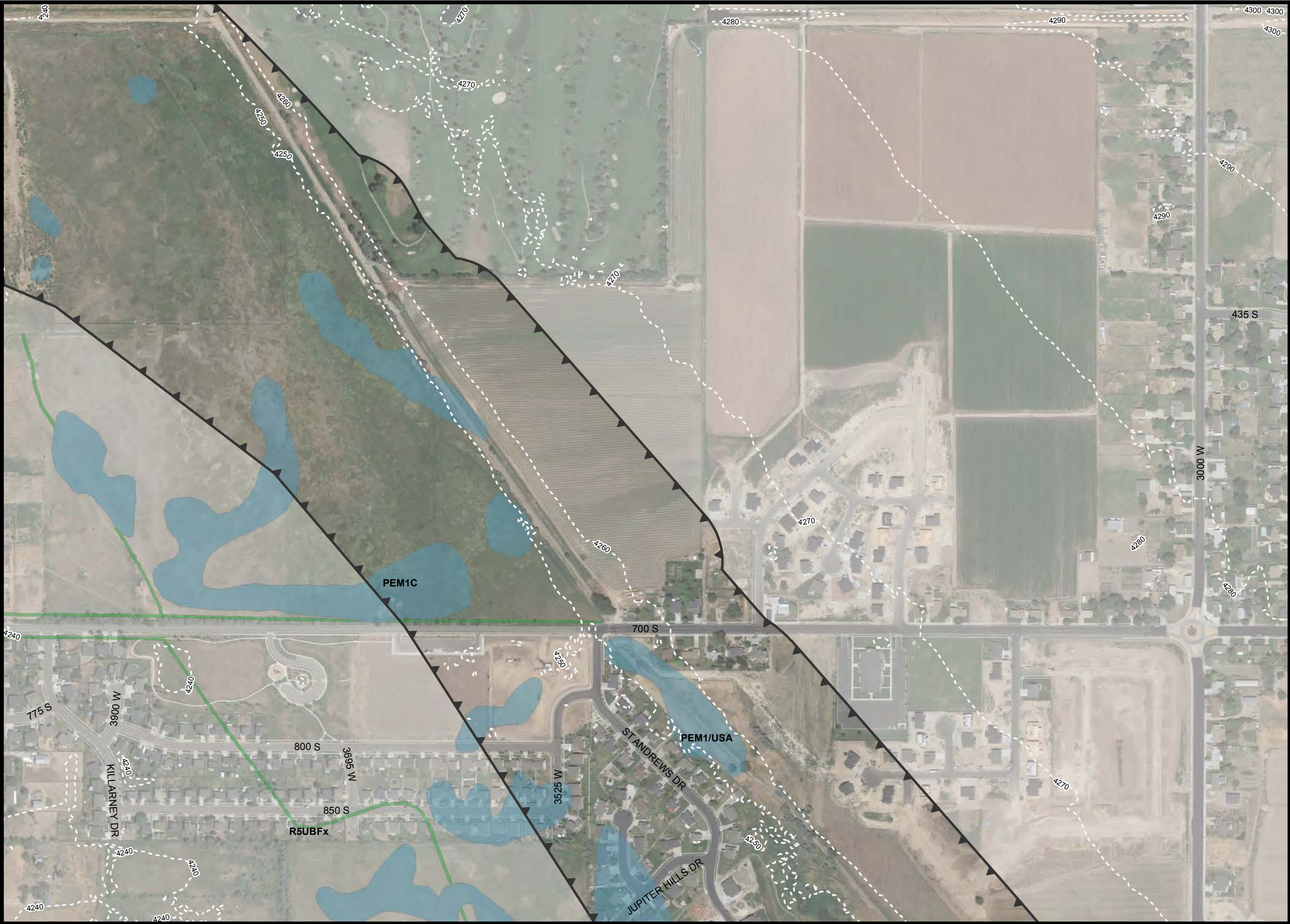
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**WEST DAVIS  
CORRIDOR**

-  Delineation Survey Area
-  Freshwater Emergent Wetland
-  Riverine
-  Contors



1 inch = 400 feet

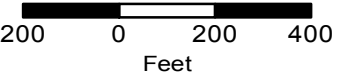


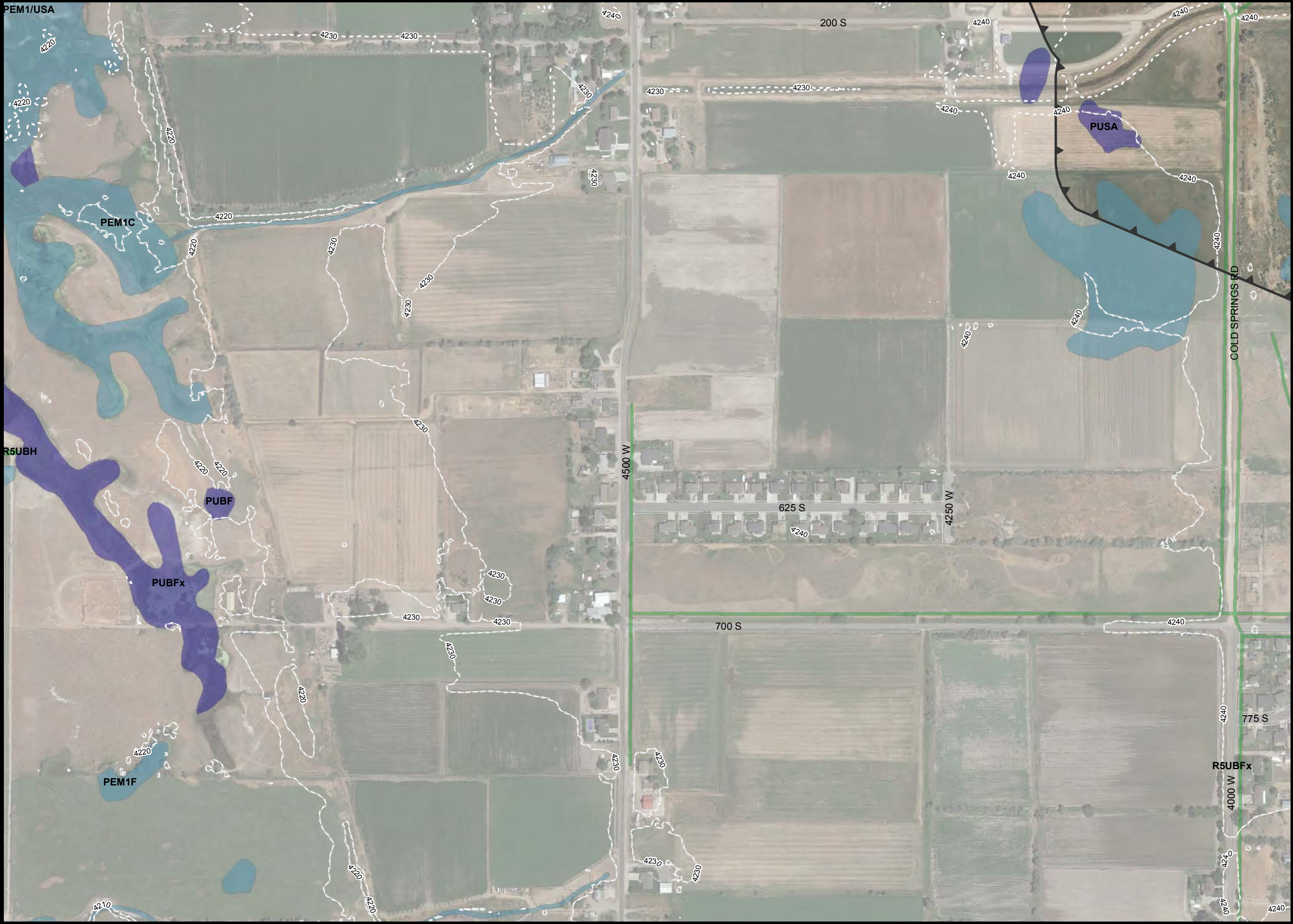
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**WEST DAVIS  
CORRIDOR**

 Delineation Survey Area

 Freshwater Emergent Wetland

 Freshwater Pond

 Riverine

 Contours



Great Salt Lake



1 inch = 400 feet



200 0 200 400  
Feet

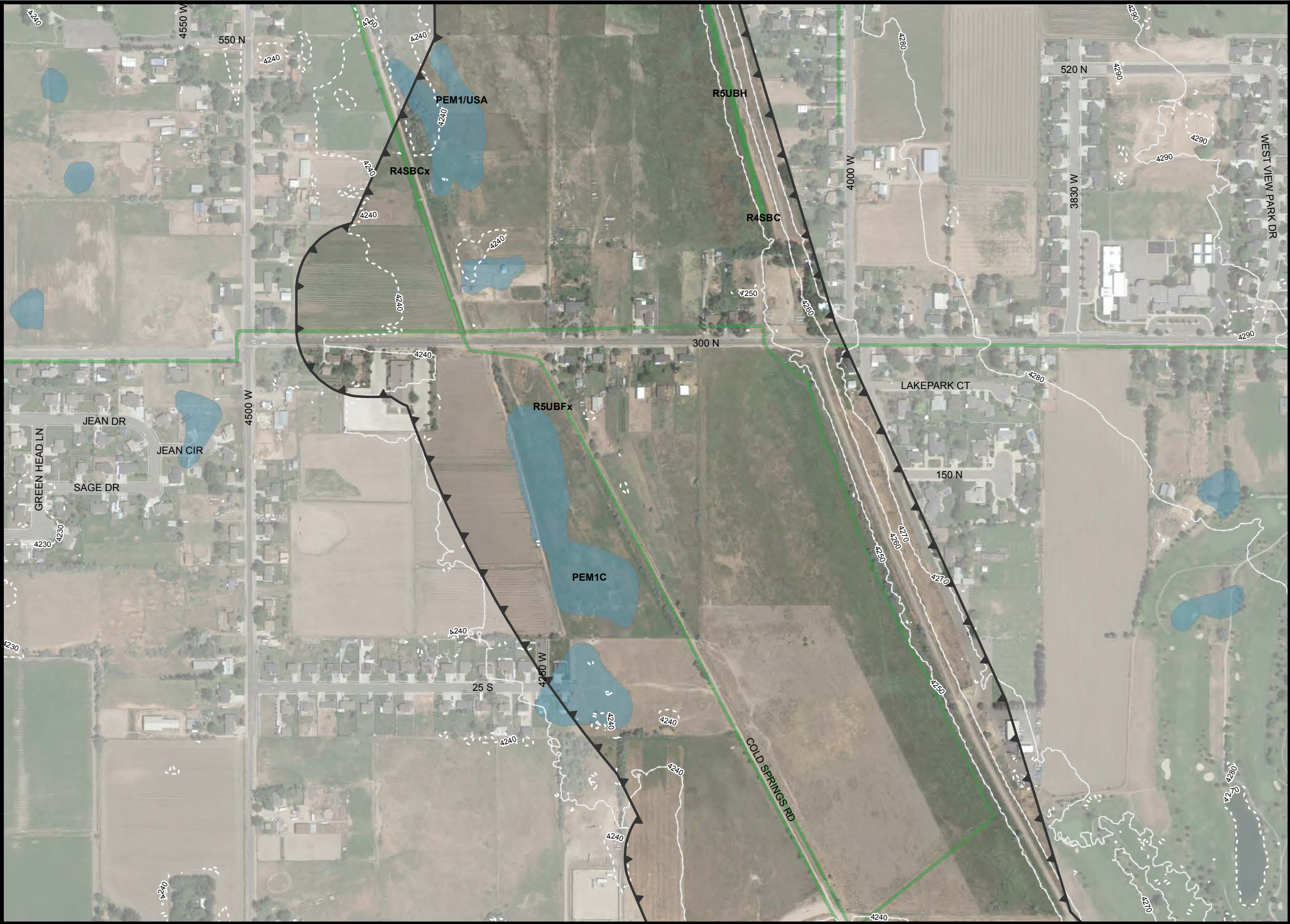
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**National Wetland  
Inventory Maps**

April 2017

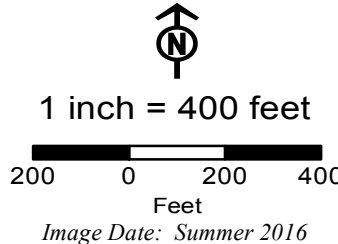
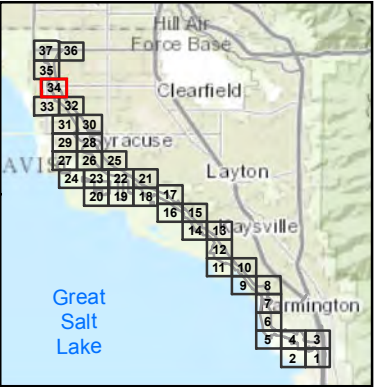
**North Region**  
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**WEST DAVIS  
CORRIDOR**

- Delineation Survey Area
- Freshwater Emergent Wetland
- Riverine
- Contours

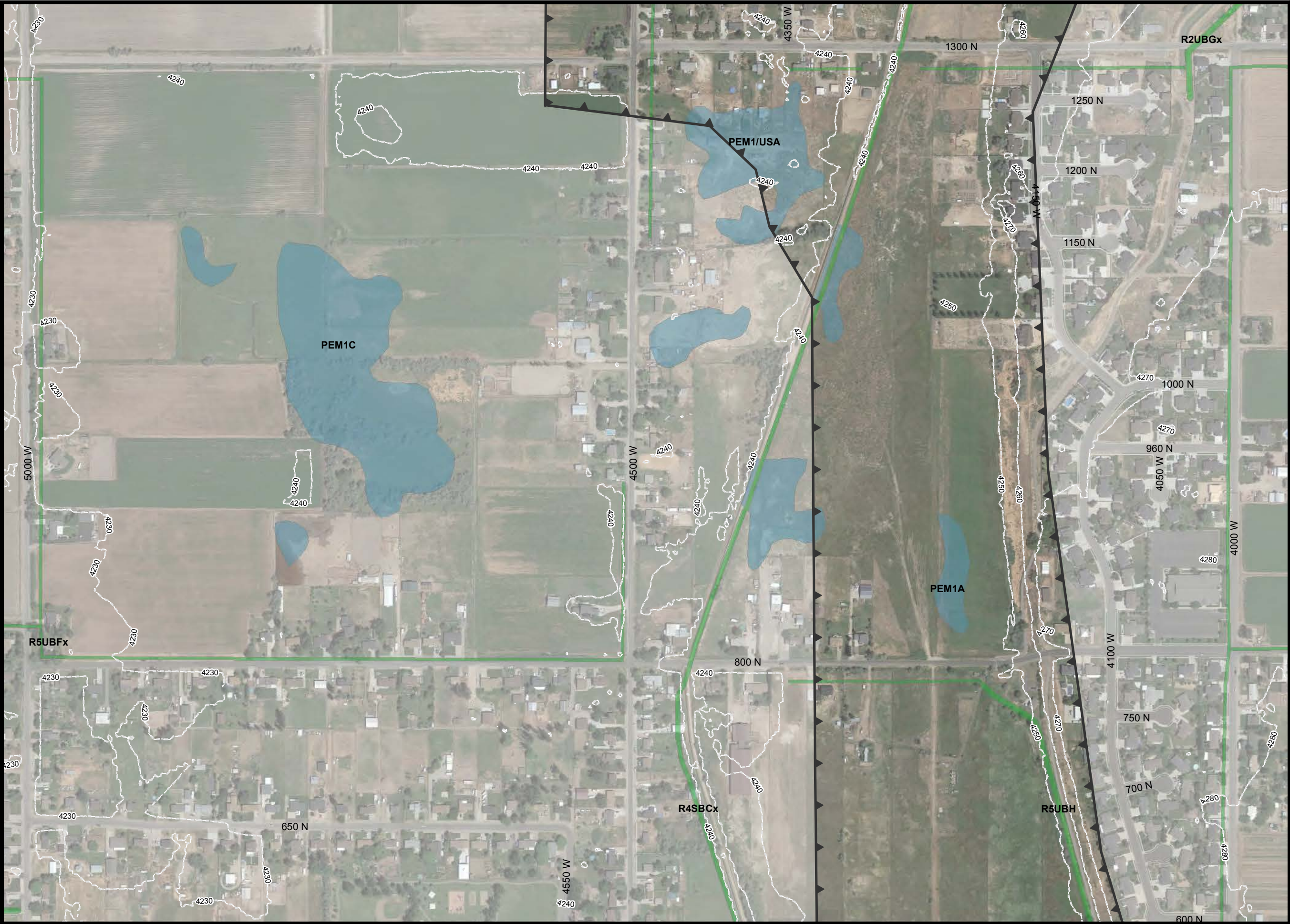


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**WEST DAVIS  
CORRIDOR**

- Delineation Survey Area
- Freshwater Emergent Wetland
- Riverine
- Contours

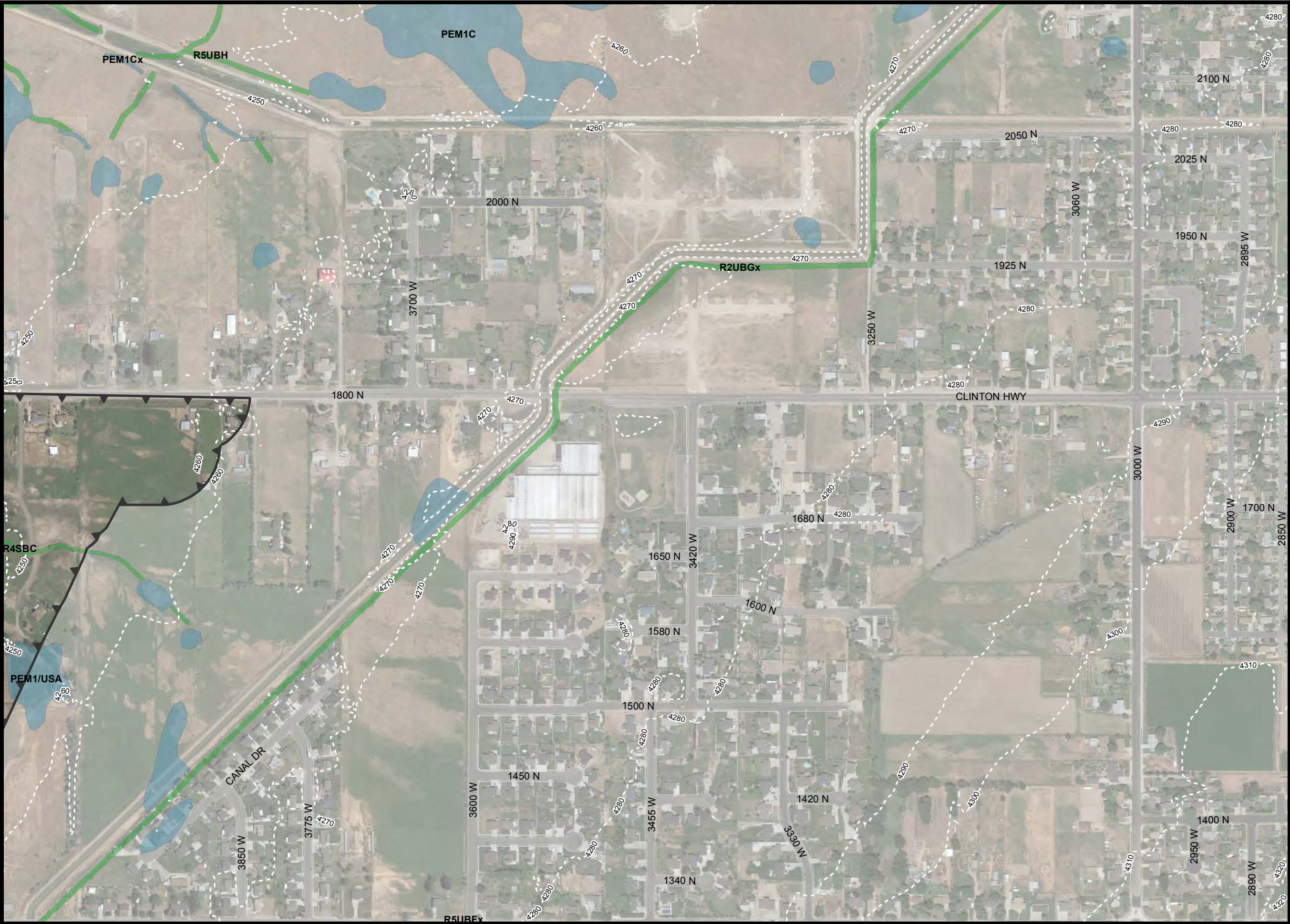


1 inch = 400 feet  
  
200 0 200 400  
Feet  
Image Date: Summer 2016





**National Wetland  
Inventory Maps**

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**North Region**  
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# WEST DAVIS CORRIDOR

-  Delineation Survey Area
-  Freshwater Emergent Wetland
-  Riverine
-  Contours



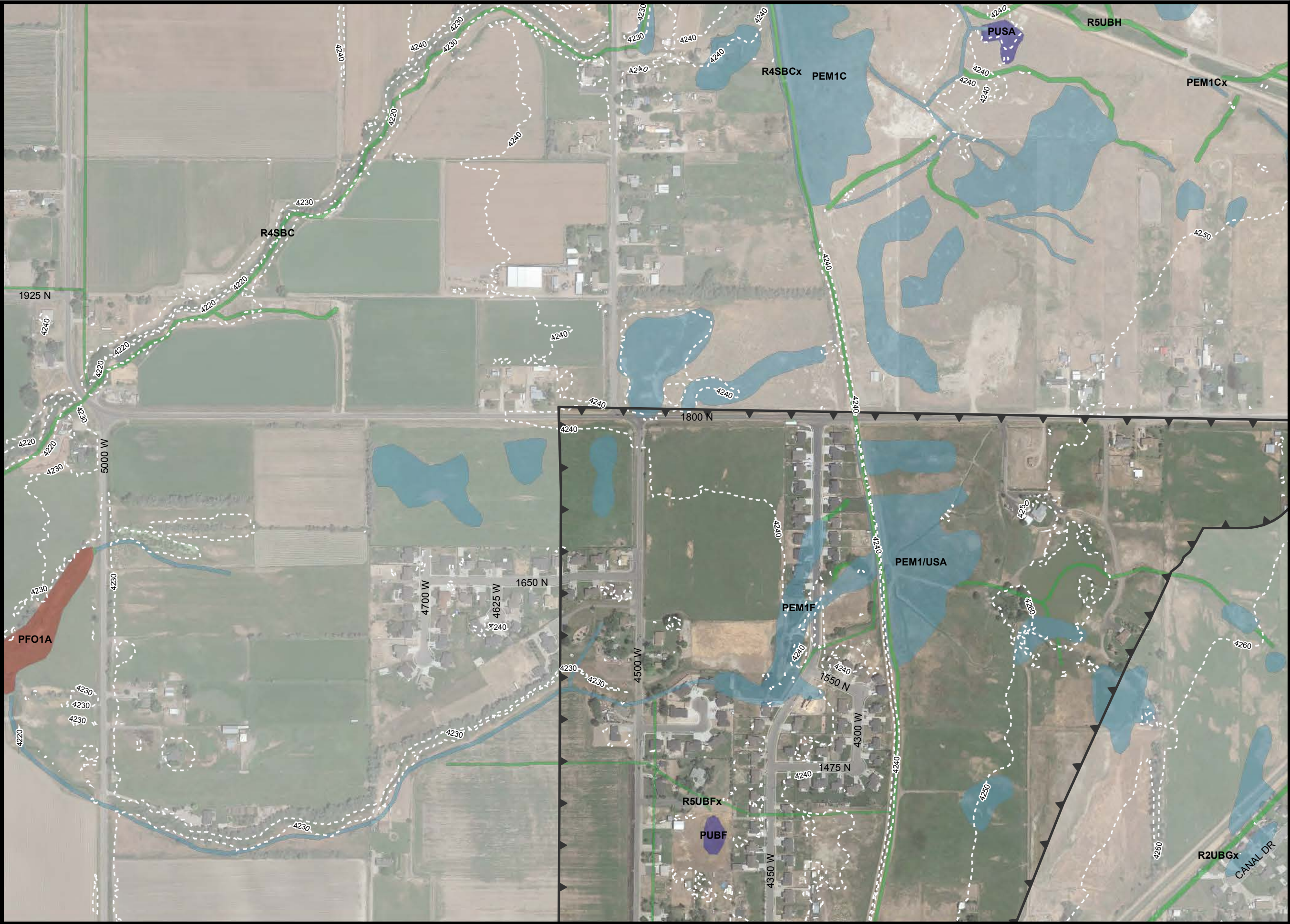
  
1 inch = 458 feet  
  
200 0 200 400  
Feet  
Image Date: Summer 2016

## National Wetland Inventory Maps

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**WEST DAVIS**  
CORRIDOR

 Delineation Survey Area

 Freshwater Emergent Wetland

 Freshwater Forested/Shrub Wetland

 Freshwater Pond

 Riverine

 Contours



Great Salt Lake



1 inch = 458 feet



200 0 200 400 Feet

Image Date: Summer 2016

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**Appendix F**  
**NRCS Soil Map Series**







**WEST DAVIS**  
CORRIDOR

**Legend**

-  Soil Map Unit
-  Delineation Survey Area



Great Salt Lake



1 inch = 400 feet



200 0 200 400  
Feet

Image Date: Summer 2016

**NRCS Soil Maps**

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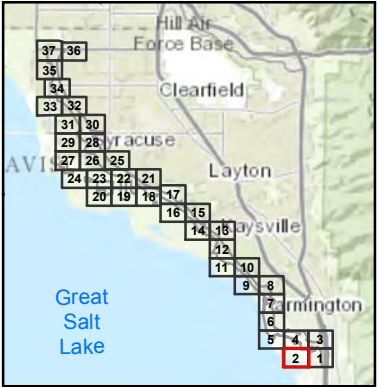




**WEST DAVIS  
CORRIDOR**

**Legend**

- Soil Map Unit
- Delineation Survey Area



1 inch = 400 feet

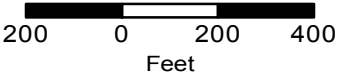


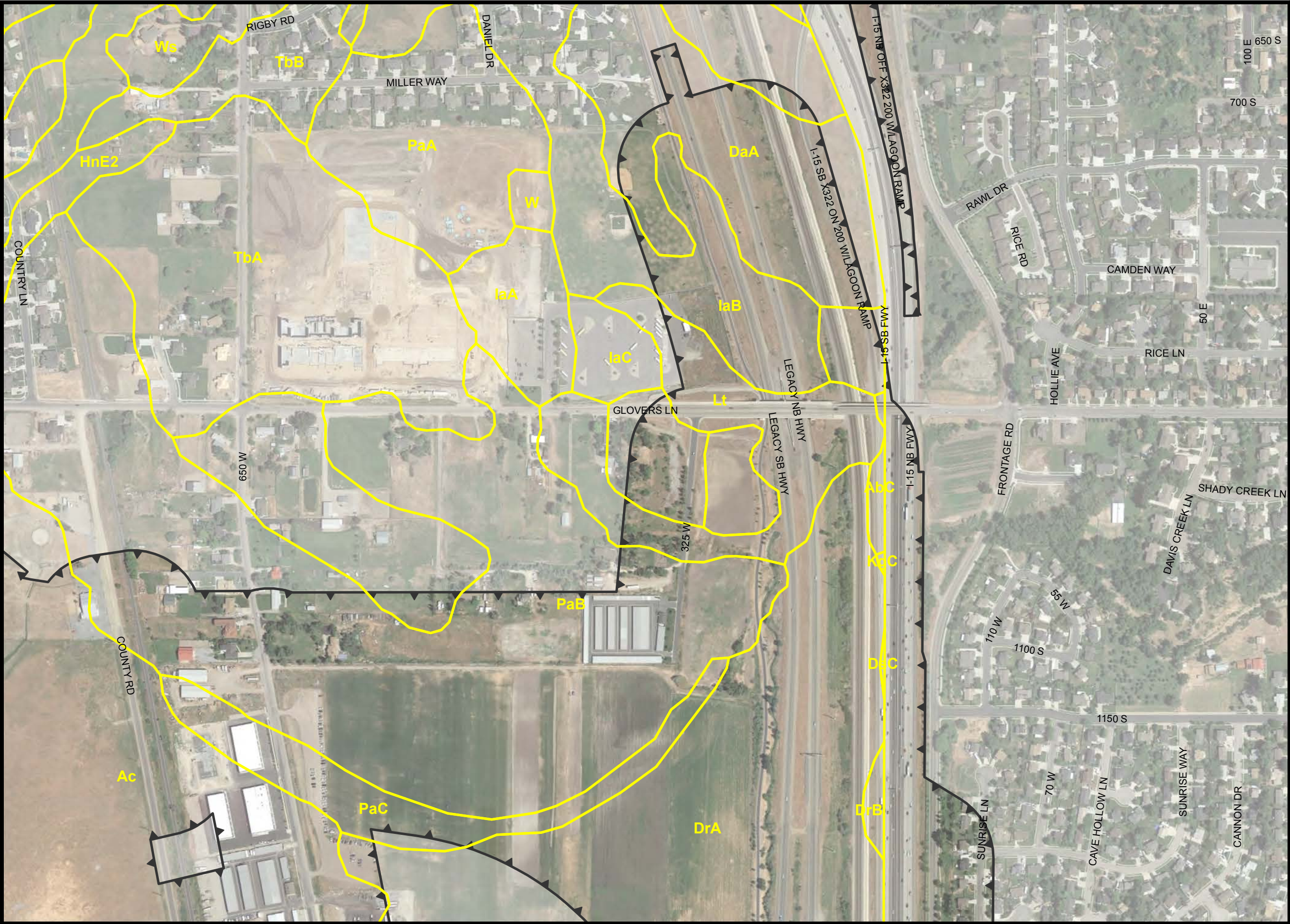
Image Date: Summer 2016

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### WEST DAVIS CORRIDOR

**Legend**

- Soil Map Unit
- Delineation Survey Area

1 inch = 400 feet

200 0 200 400  
Feet

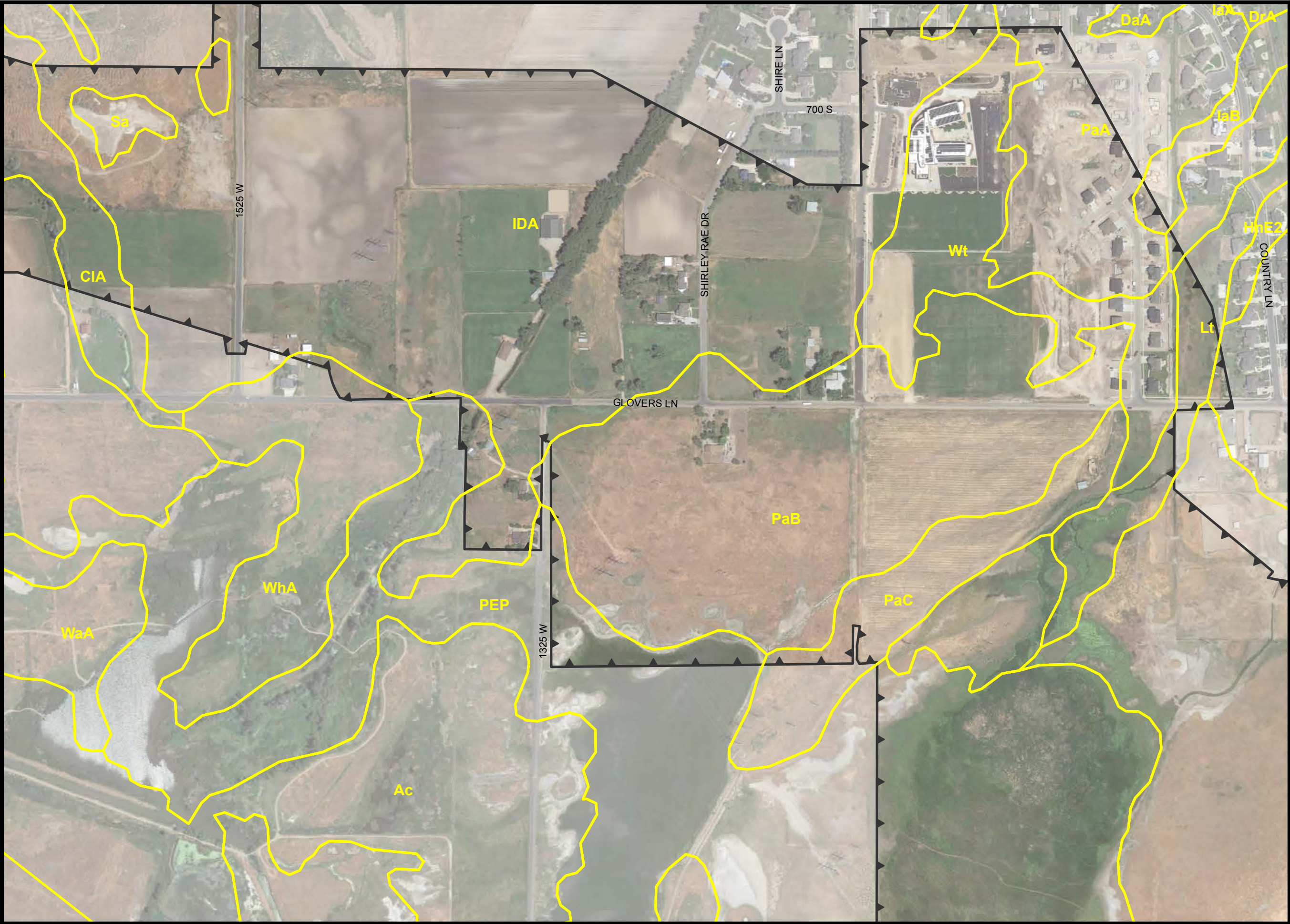
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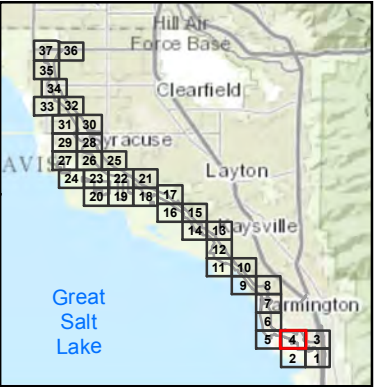




**WEST DAVIS  
CORRIDOR**

**Legend**

- Soil Map Unit
- Delineation Survey Area



1 inch = 400 feet



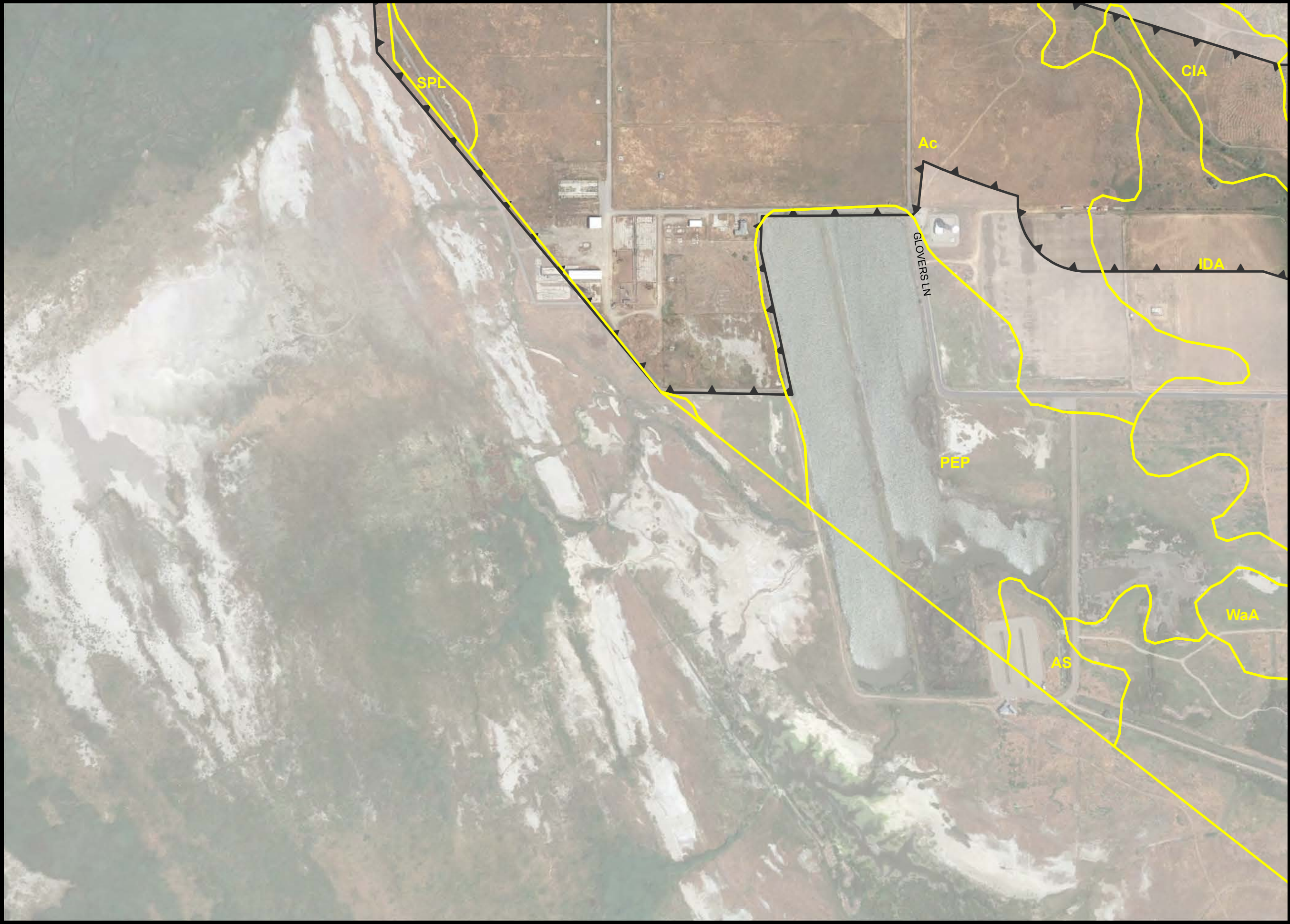
Image Date: Summer 2016

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**WEST DAVIS  
CORRIDOR**

**Legend**

- Soil Map Unit
- Delineation Survey Area



1 inch = 400 feet

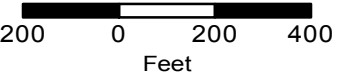


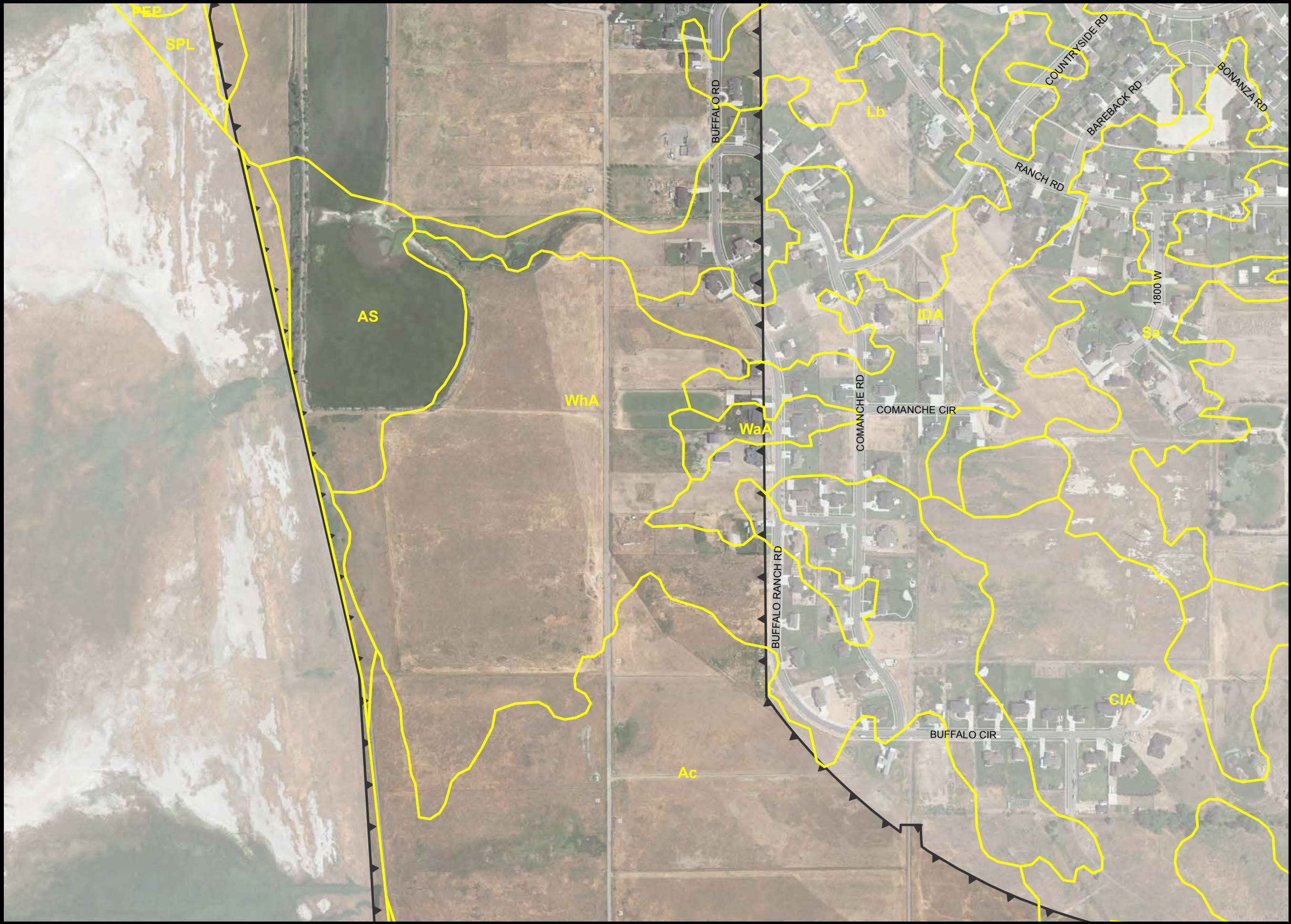
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**NRCS Soil Maps**

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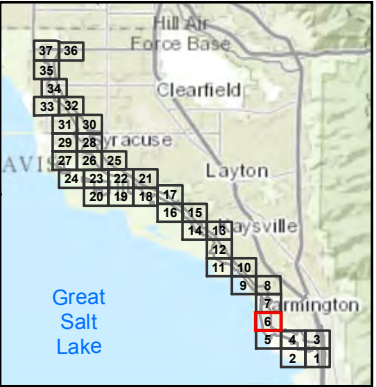




**WEST DAVIS  
CORRIDOR**

**Legend**

-  Soil Map Unit
-  Delineation Survey Area



1 inch = 400 feet



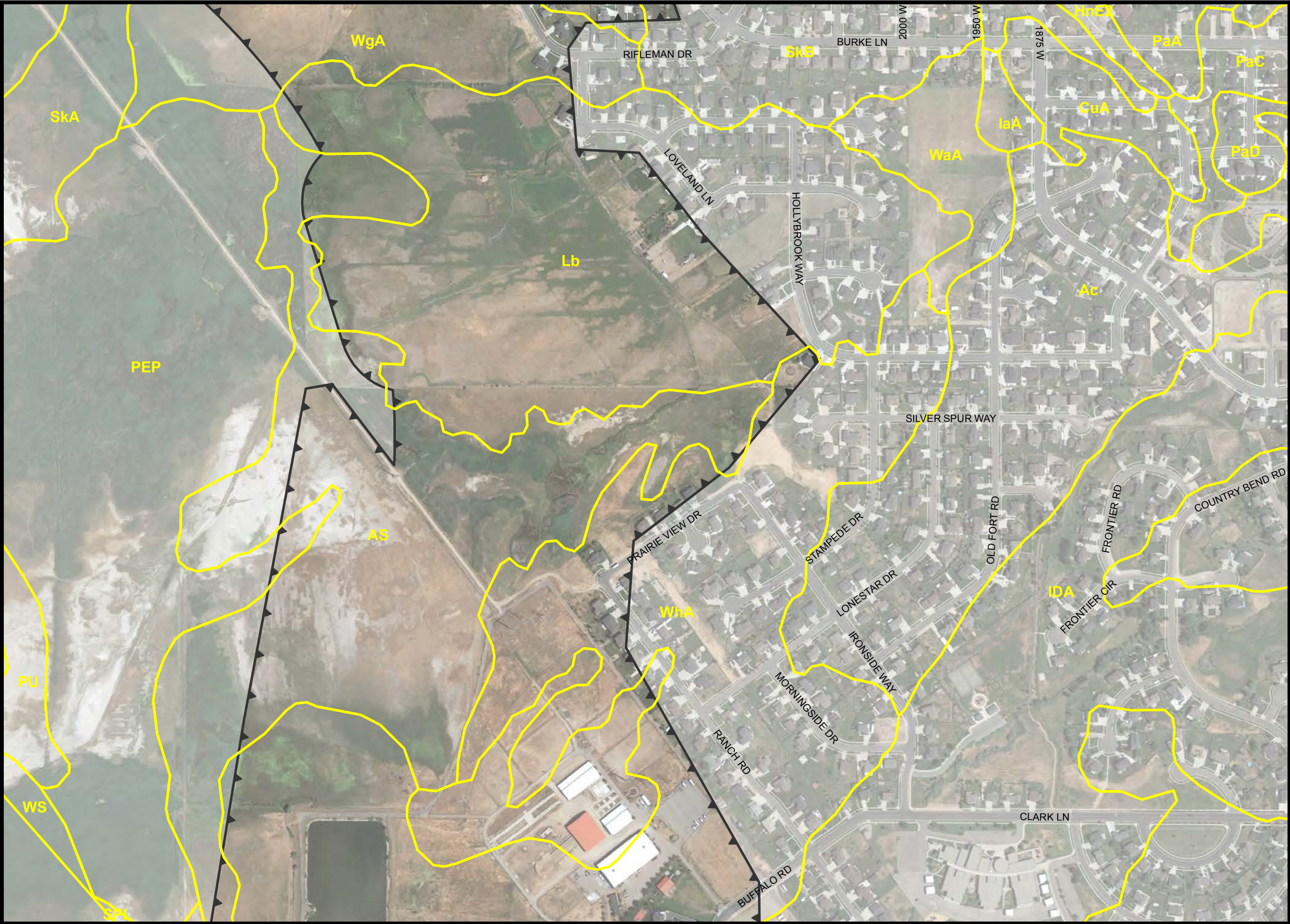
Image Date: Summer 2016

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**WEST DAVIS**  
CORRIDOR

**Legend**

-  Soil Map Unit
-  Delineation Survey Area



Great Salt Lake



1 inch = 400 feet



200 0 200 400  
Feet

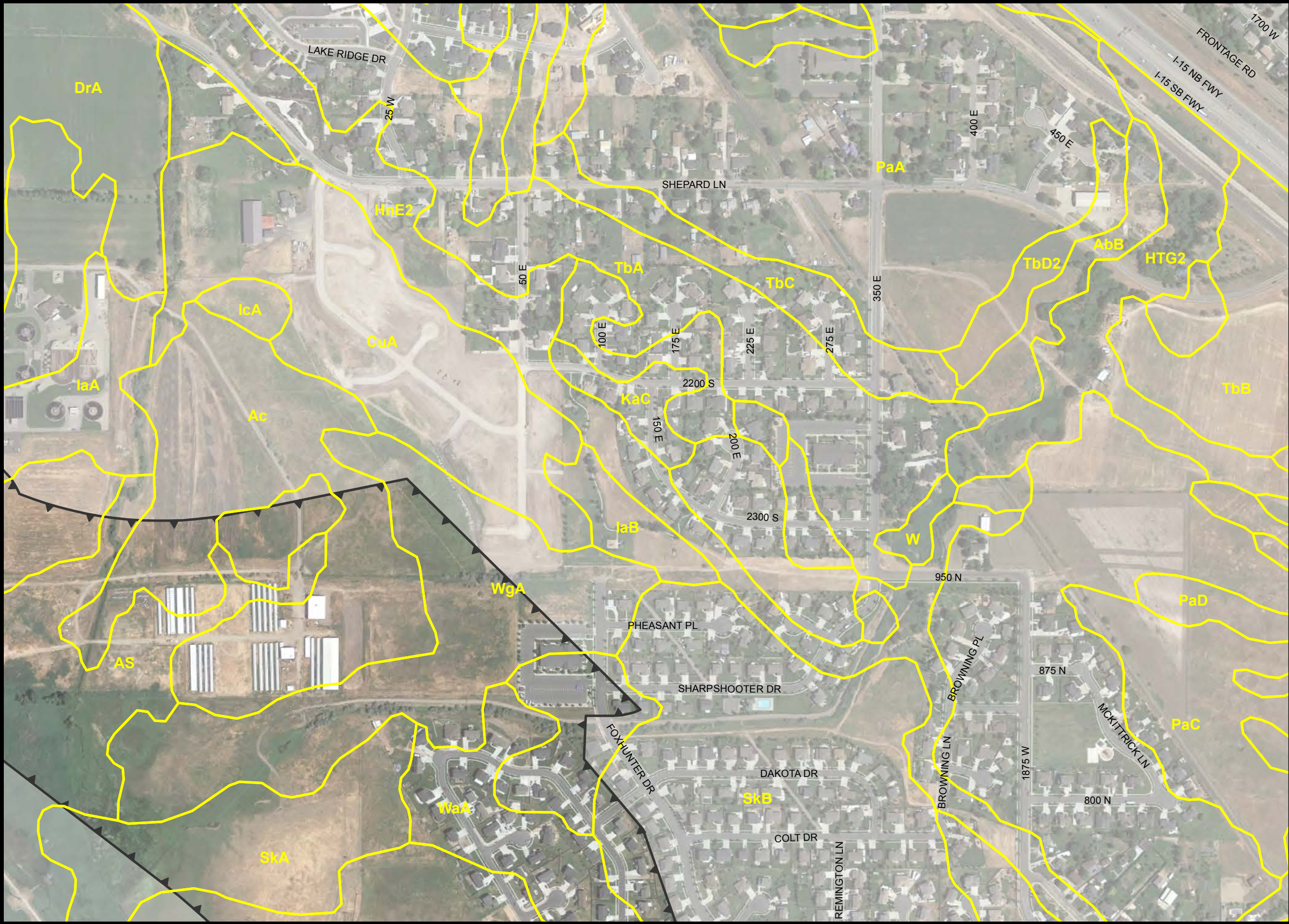
Image Date: Summer 2016

**NRCS Soil Maps**

April 2017

**South Region**  
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### WEST DAVIS CORRIDOR

**Legend**

- Soil Map Unit
- Delineation Survey Area

1 inch = 400 feet

200 0 200 400 Feet

Image Date: Summer 2016

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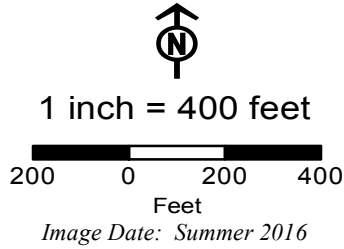
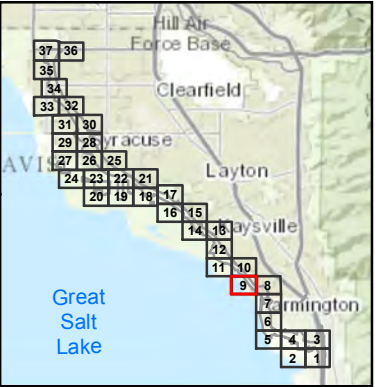




# WEST DAVIS CORRIDOR

## Legend

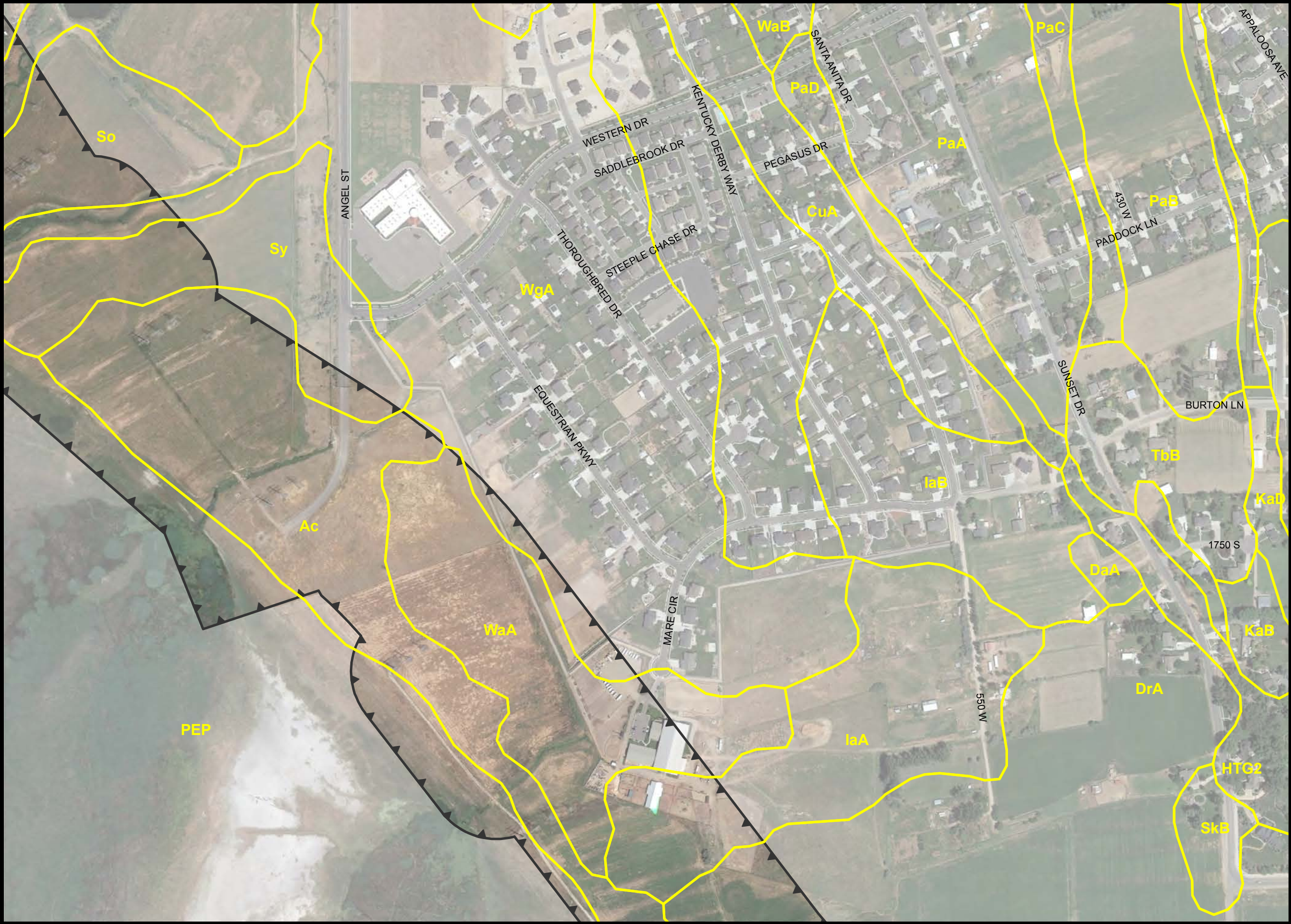
- Soil Map Unit
- Delineation Survey Area



## NRCS Soil Maps



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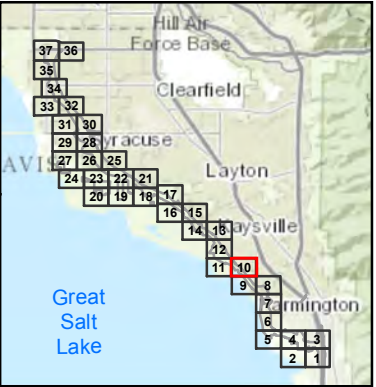




# WEST DAVIS CORRIDOR

## Legend

-  Soil Map Unit
-  Delineation Survey Area



1 inch = 400 feet



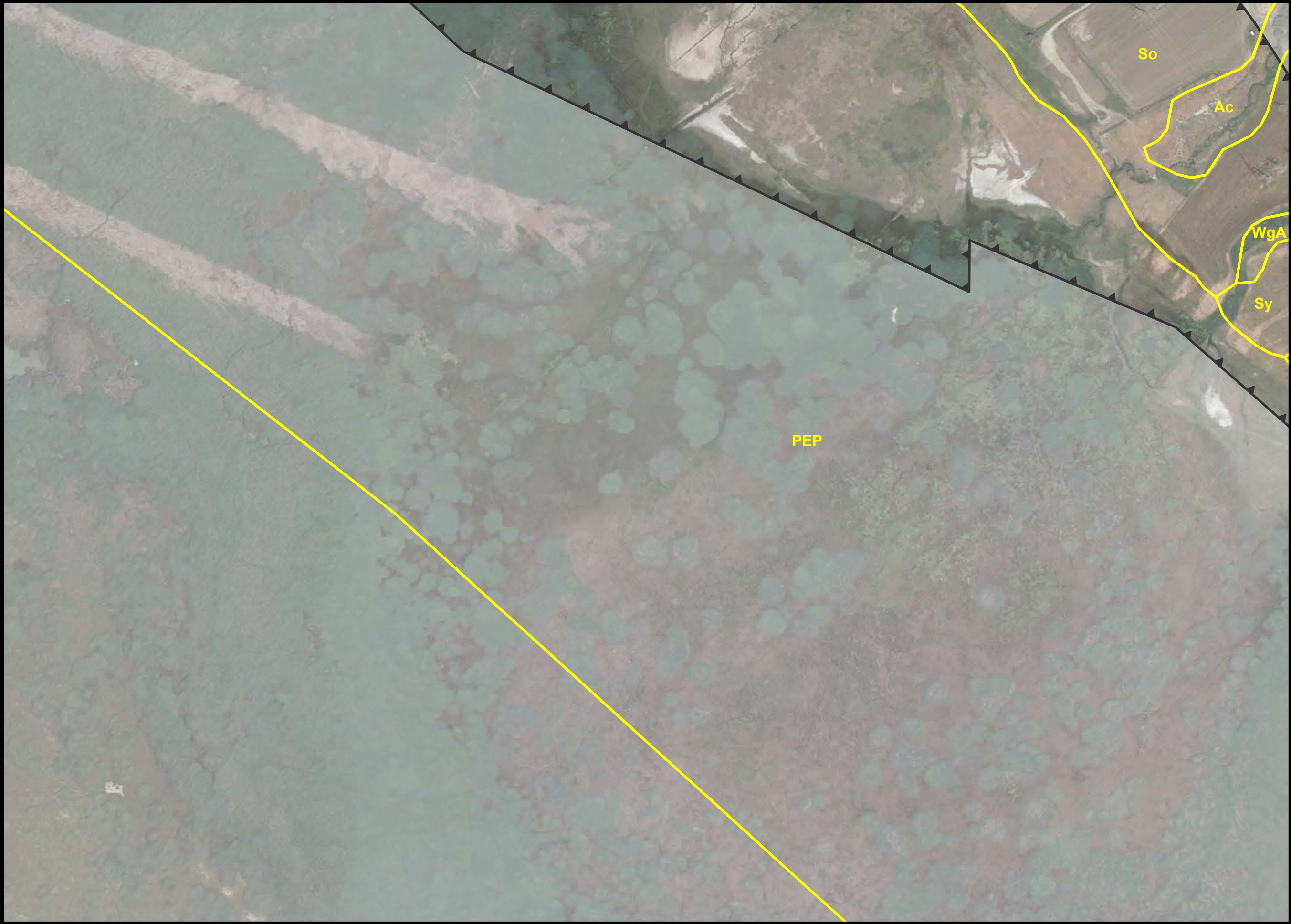
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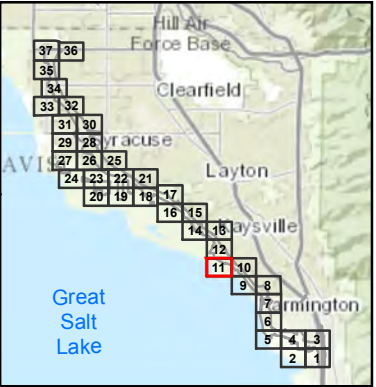




WEST DAVIS  
CORRIDOR

Legend

-  Soil Map Unit
-  Delineation Survey Area



1 inch = 400 feet

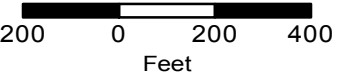


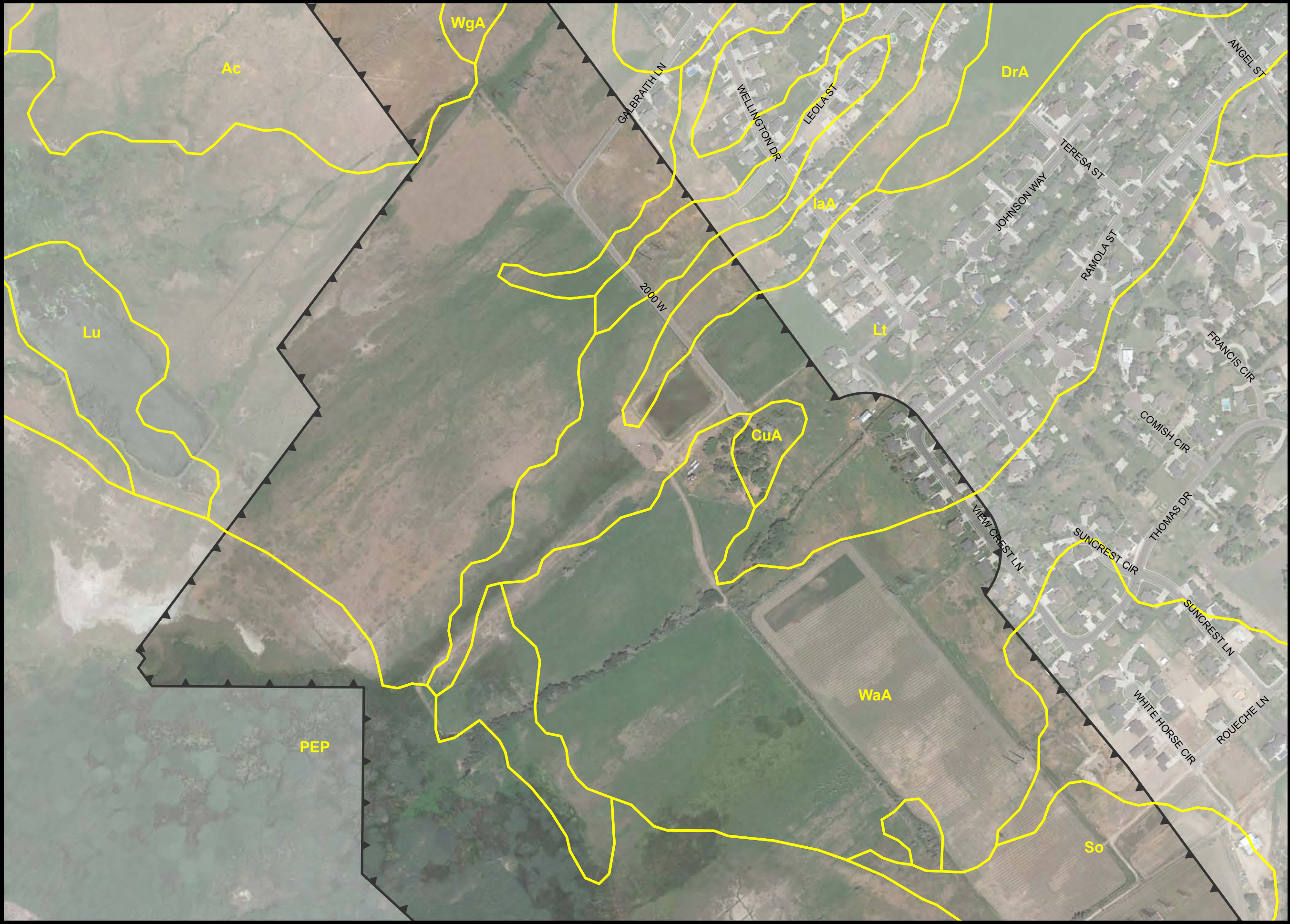
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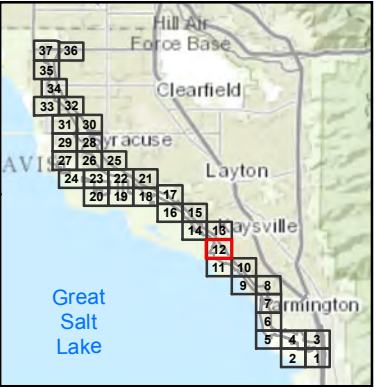




WEST DAVIS  
CORRIDOR

Legend

- Soil Map Unit
- Delineation Survey Area



1 inch = 400 feet



Image Date: Summer 2016

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April 2017

South Region  
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WEST DAVIS  
CORRIDOR

Legend

- Soil Map Unit
- Delineation Survey Area



1 inch = 400 feet



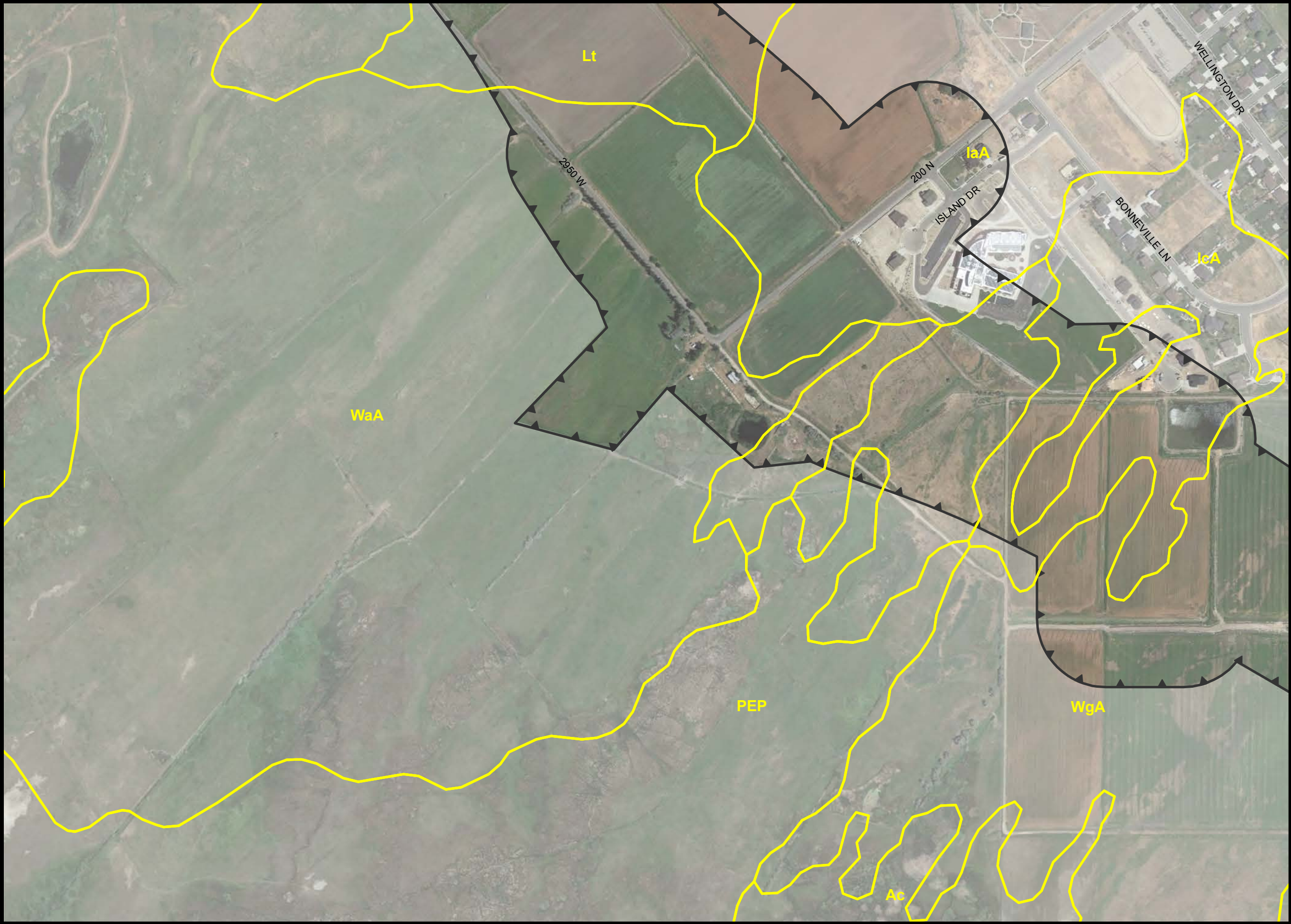
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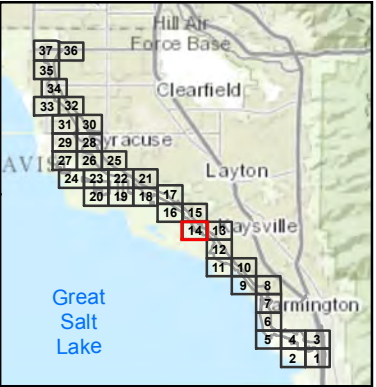




**WEST DAVIS  
CORRIDOR**

**Legend**

- Soil Map Unit
- Delineation Survey Area



1 inch = 400 feet



Image Date: Summer 2016

**NRCS Soil Maps**

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**South Region**  
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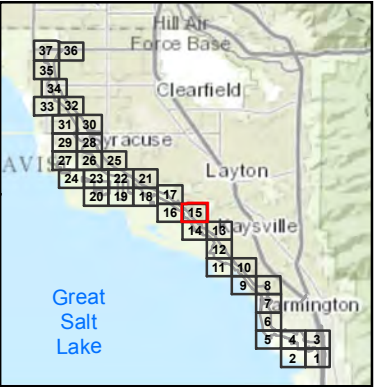




**WEST DAVIS  
CORRIDOR**

**Legend**

-  Soil Map Unit
-  Delineation Survey Area



1 inch = 400 feet



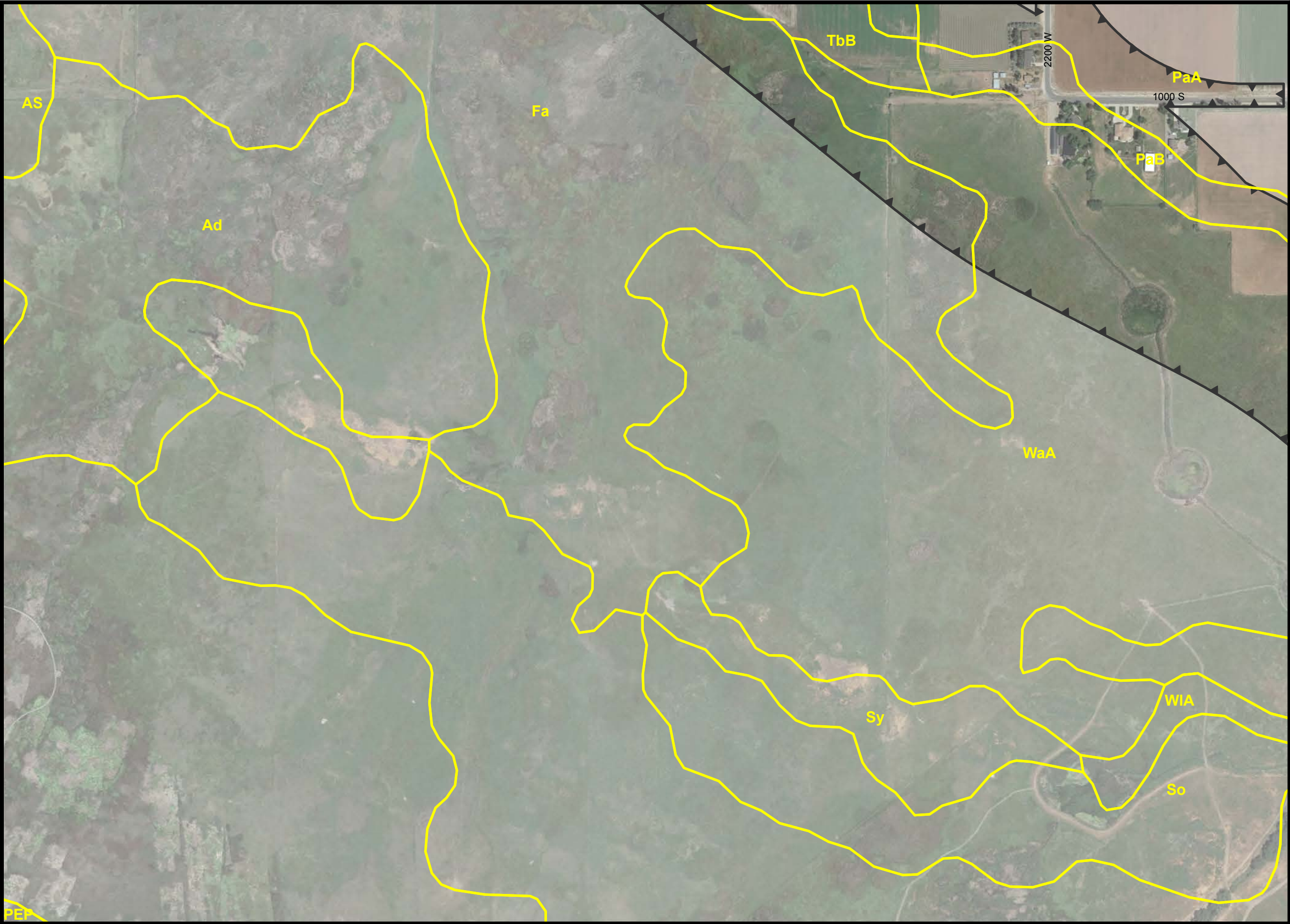
Image Date: Summer 2016

**NRCS Soil Maps**

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**Central Region**  
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**WEST DAVIS  
CORRIDOR**

**Legend**

-  Soil Map Unit
-  Delineation Survey Area



Great Salt Lake

  
1 inch = 400 feet  
  
200 0 200 400  
Feet  
Image Date: Summer 2016

**NRCS Soil Maps**

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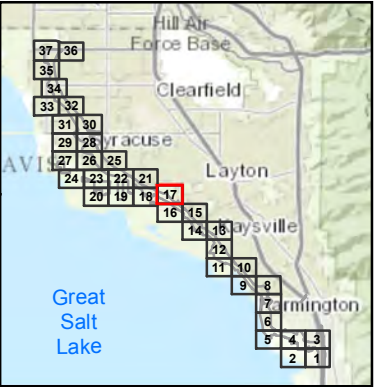




WEST DAVIS  
CORRIDOR

Legend

-  Soil Map Unit
-  Delineation Survey Area



1 inch = 400 feet

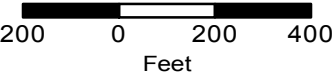


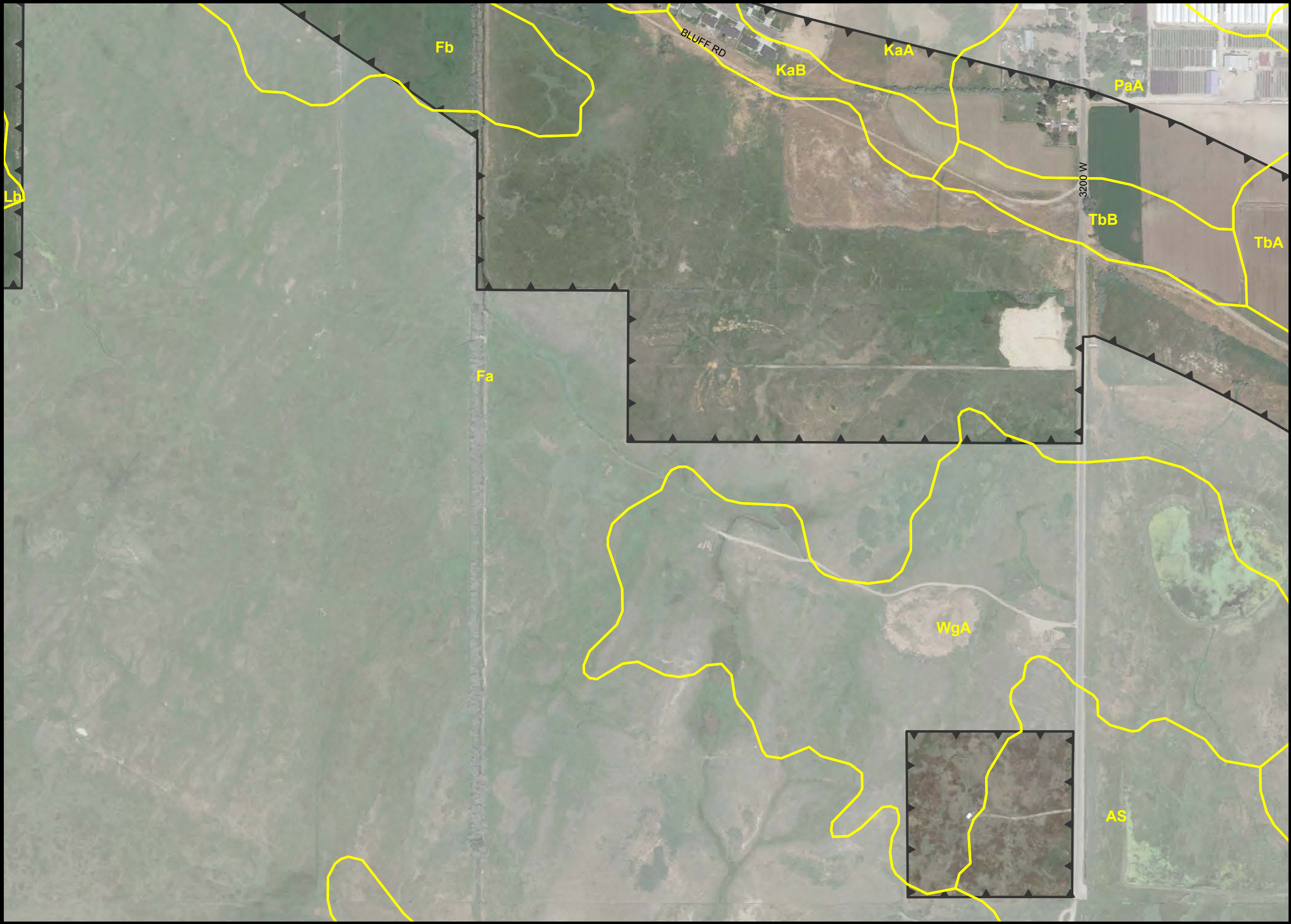
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**WEST DAVIS  
CORRIDOR**

**Legend**

-  Soil Map Unit
-  Delineation Survey Area



1 inch = 400 feet



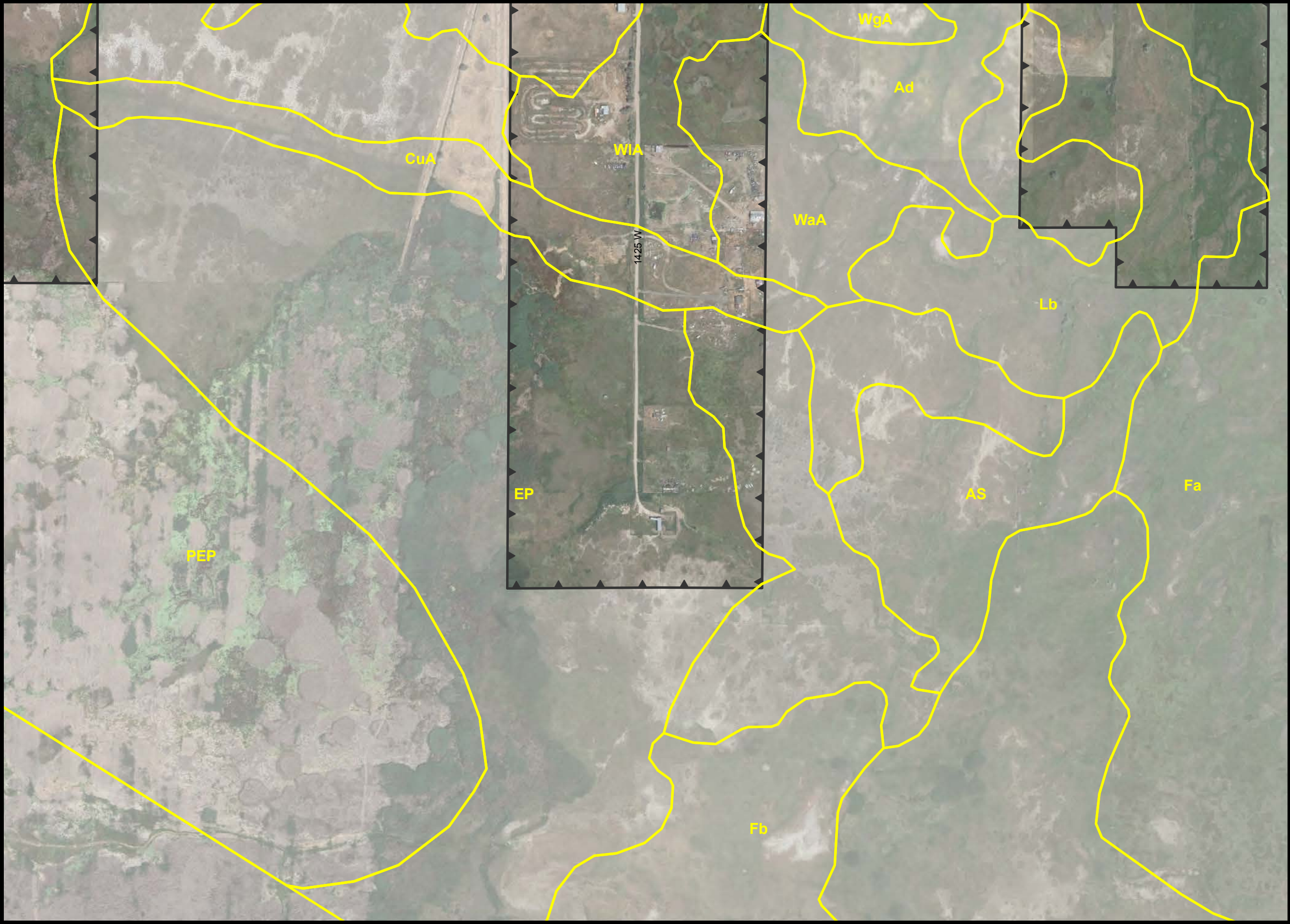
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**WEST DAVIS**  
CORRIDOR

**Legend**

-  Soil Map Unit
-  Delineation Survey Area



Great Salt Lake



1 inch = 400 feet



200 0 200 400  
Feet

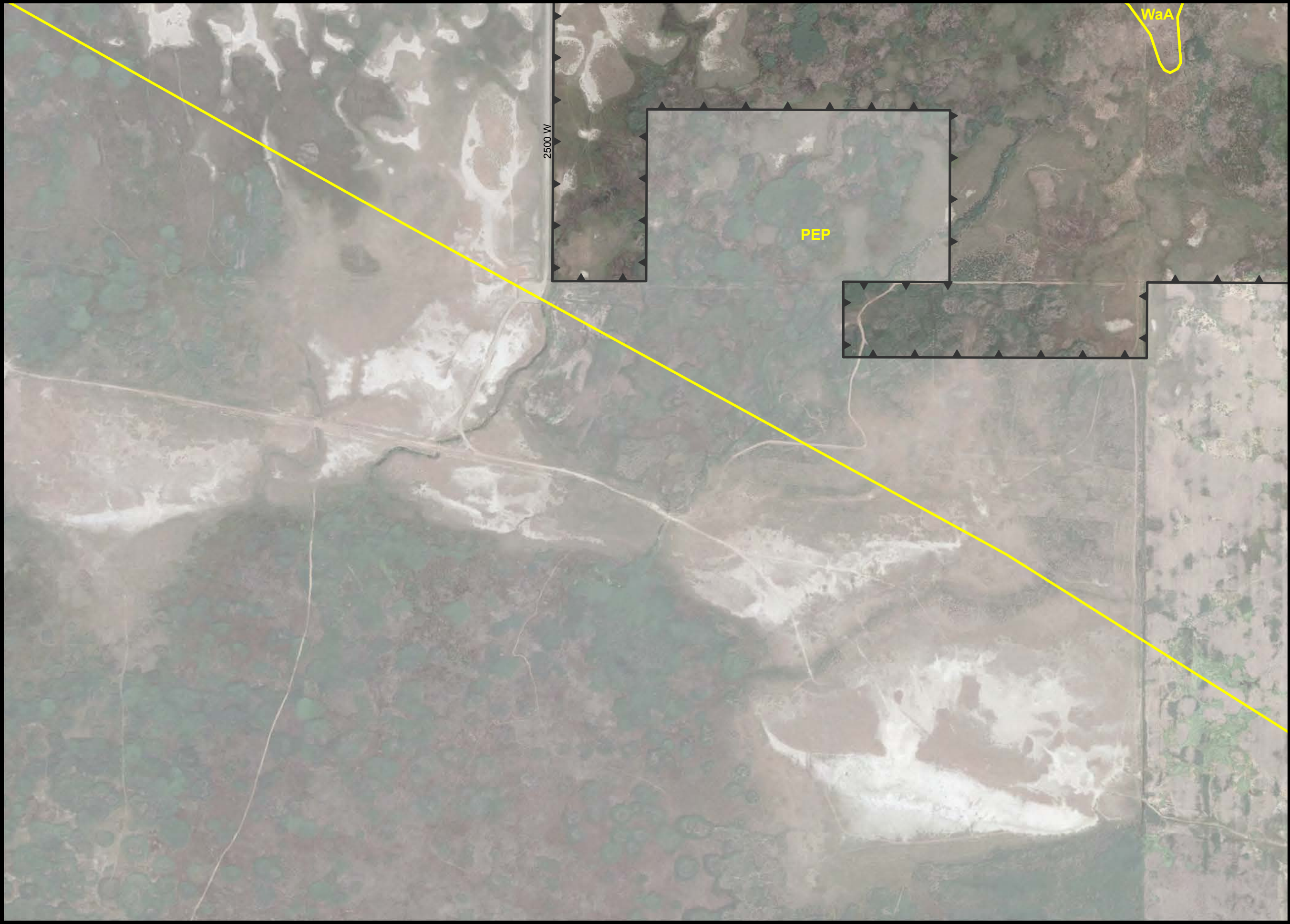
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WEST DAVIS  
CORRIDOR

Legend

- Soil Map Unit
- Delineation Survey Area



1 inch = 400 feet

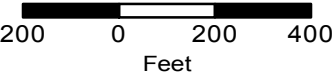


Image Date: Summer 2016

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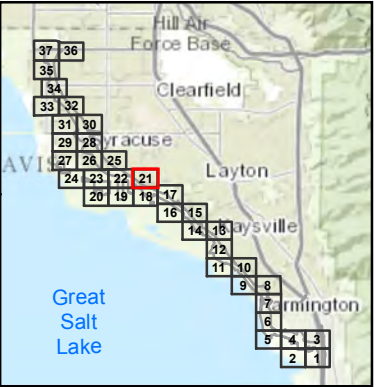




**WEST DAVIS  
CORRIDOR**

**Legend**

-  Soil Map Unit
-  Delineation Survey Area



1 inch = 400 feet



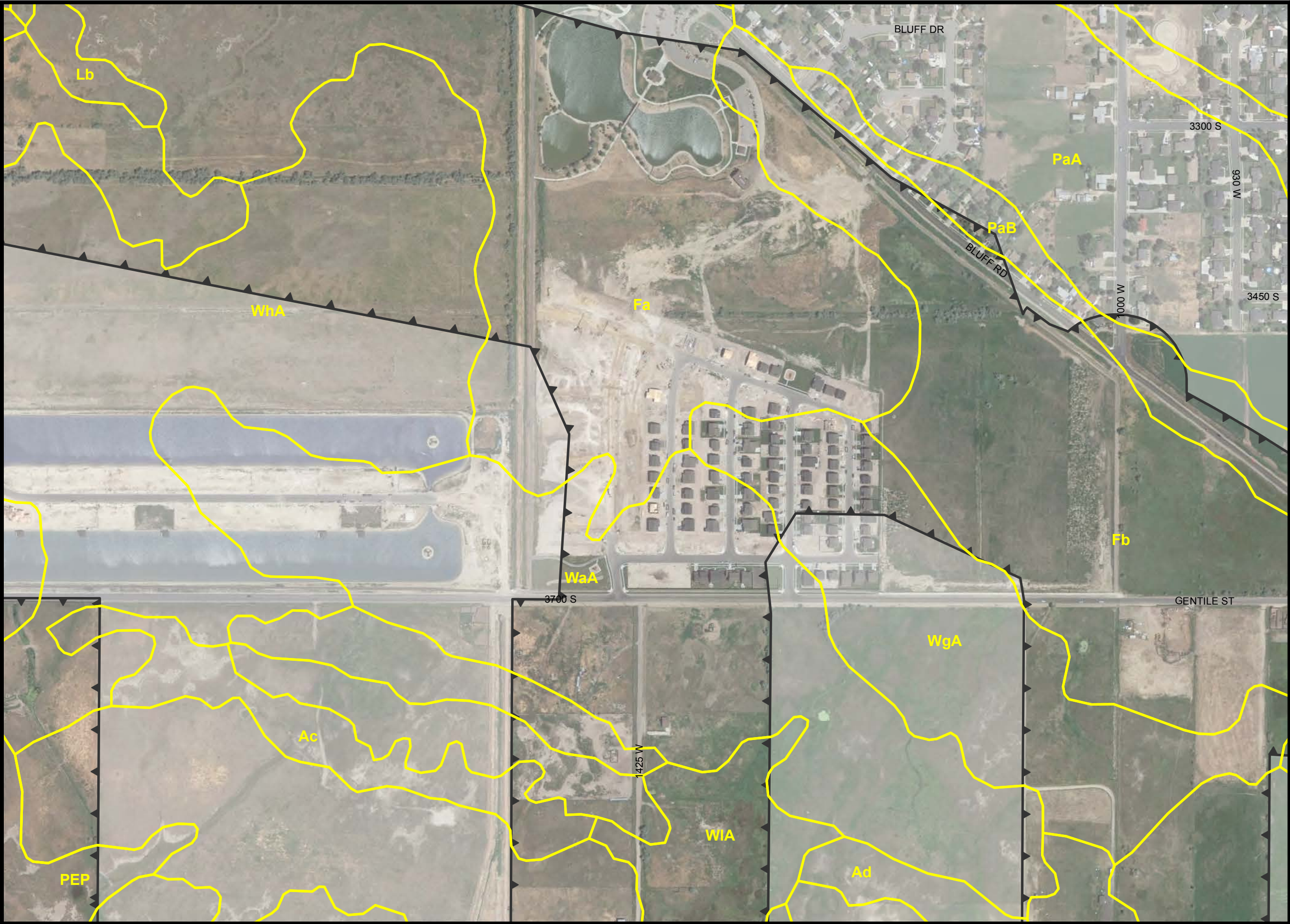
Image Date: Summer 2016

**NRCS Soil Maps**

April 2017

**Central Region**  
Sheet 21 of 37







**WEST DAVIS  
CORRIDOR**

**Legend**

-  Soil Map Unit
-  Delineation Survey Area



Great Salt Lake



1 inch = 400 feet



Feet

Image Date: Summer 2016

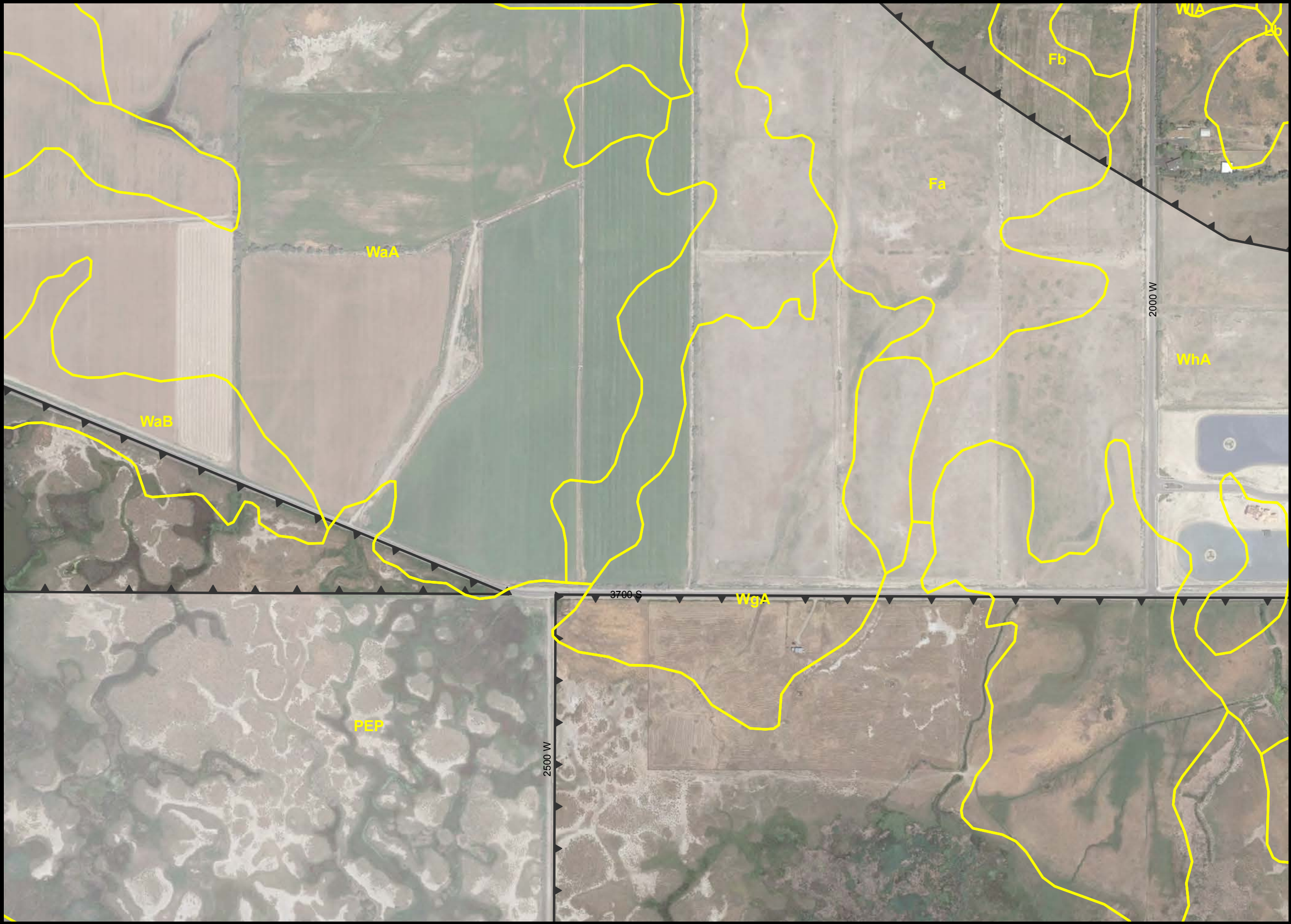
**NRCS Soil Maps**

April 2017

**Central Region**

Sheet 22 of 37







**WEST DAVIS**  
CORRIDOR

**Legend**

-  Soil Map Unit
-  Delineation Survey Area



Great Salt Lake



1 inch = 400 feet



200 0 200 400  
Feet

Image Date: Summer 2016

**NRCS Soil Maps**

April 2017

**Central Region**  
Sheet 23 of 37







**WEST DAVIS**  
CORRIDOR

**Legend**

-  Soil Map Unit
-  Delineation Survey Area





1 inch = 400 feet



200 0 200 400  
Feet

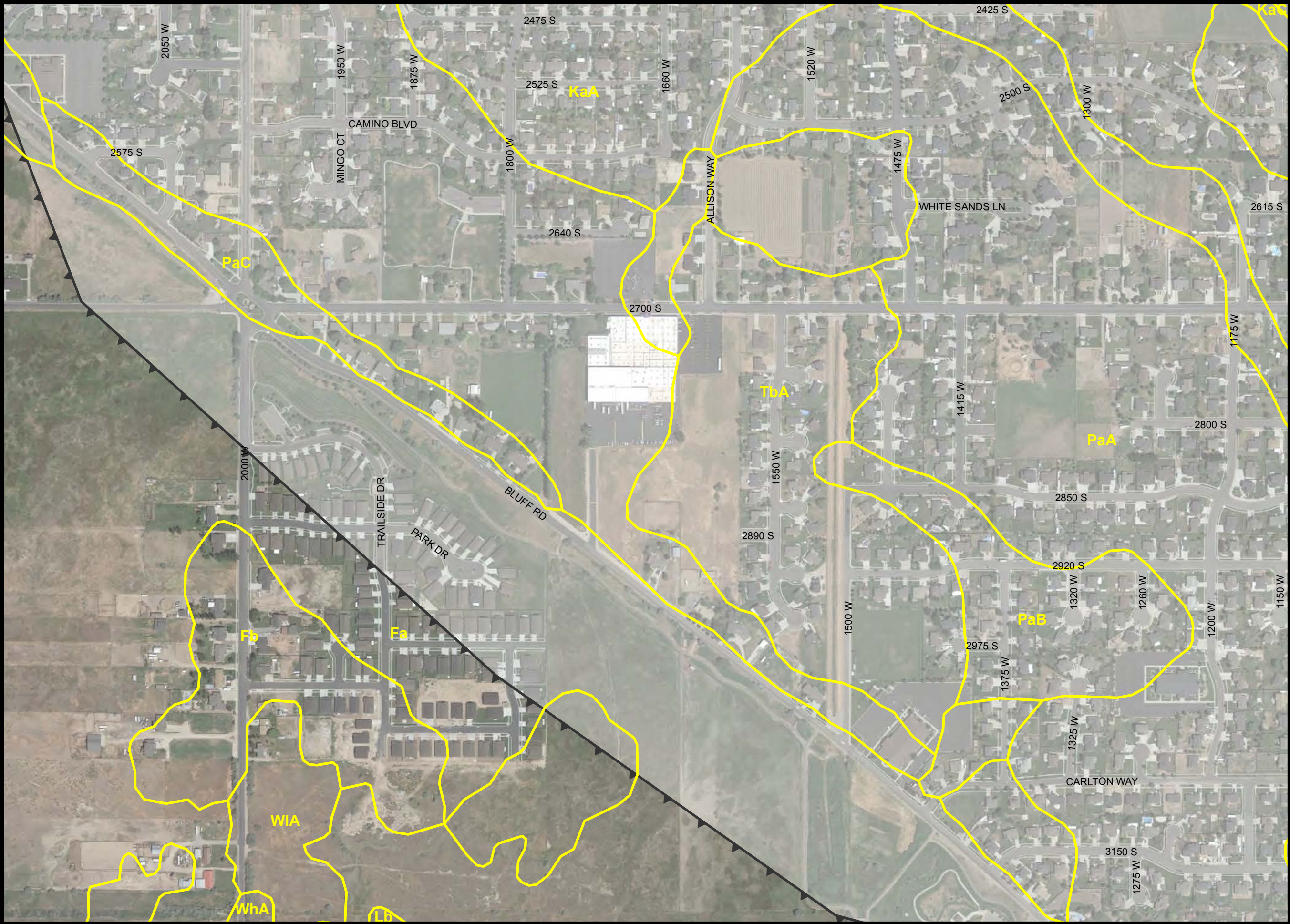
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**NRCS Soil Maps**

April 2017

**Central Region**  
Sheet 24 of 37







**WEST DAVIS**  
CORRIDOR

**Legend**

-  Soil Map Unit
-  Delineation Survey Area



Great Salt Lake



1 inch = 400 feet



200 0 200 400  
Feet

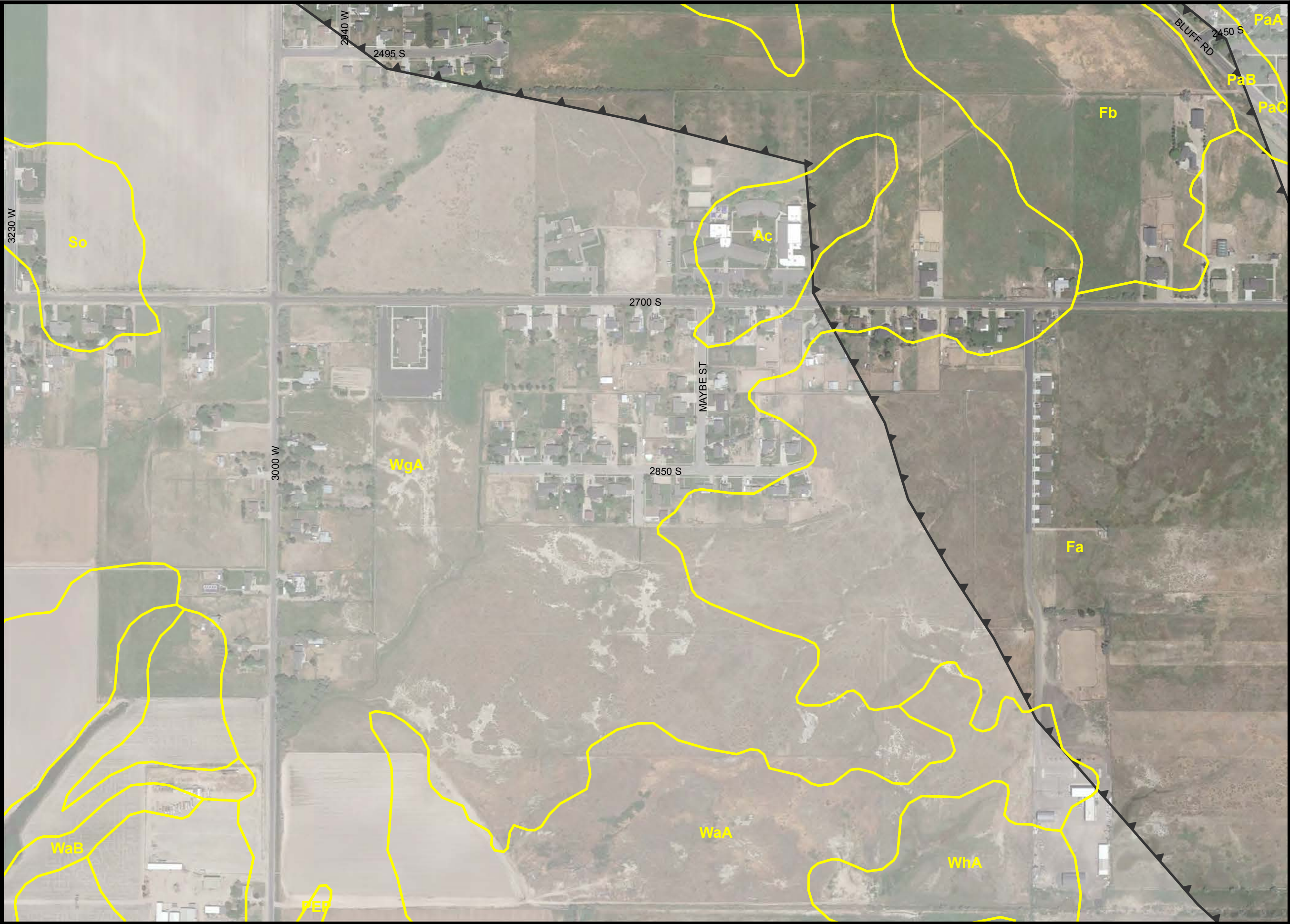
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**NRCS Soil Maps**

April 2017

**Central Region**  
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**WEST DAVIS  
CORRIDOR**

**Legend**

- Soil Map Unit
- Delineation Survey Area



1 inch = 400 feet



Image Date: Summer 2016

**NRCS Soil Maps**

April 2017



**Central Region**  
Sheet 26 of 37

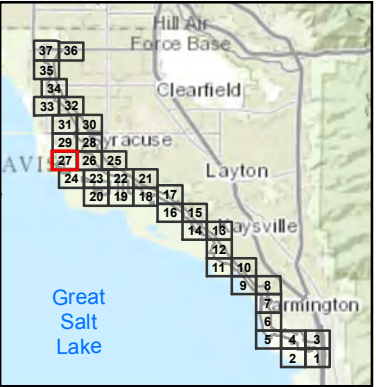




**WEST DAVIS  
CORRIDOR**

**Legend**

-  Soil Map Unit
-  Delineation Survey Area



1 inch = 400 feet

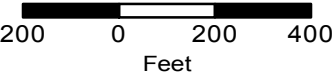


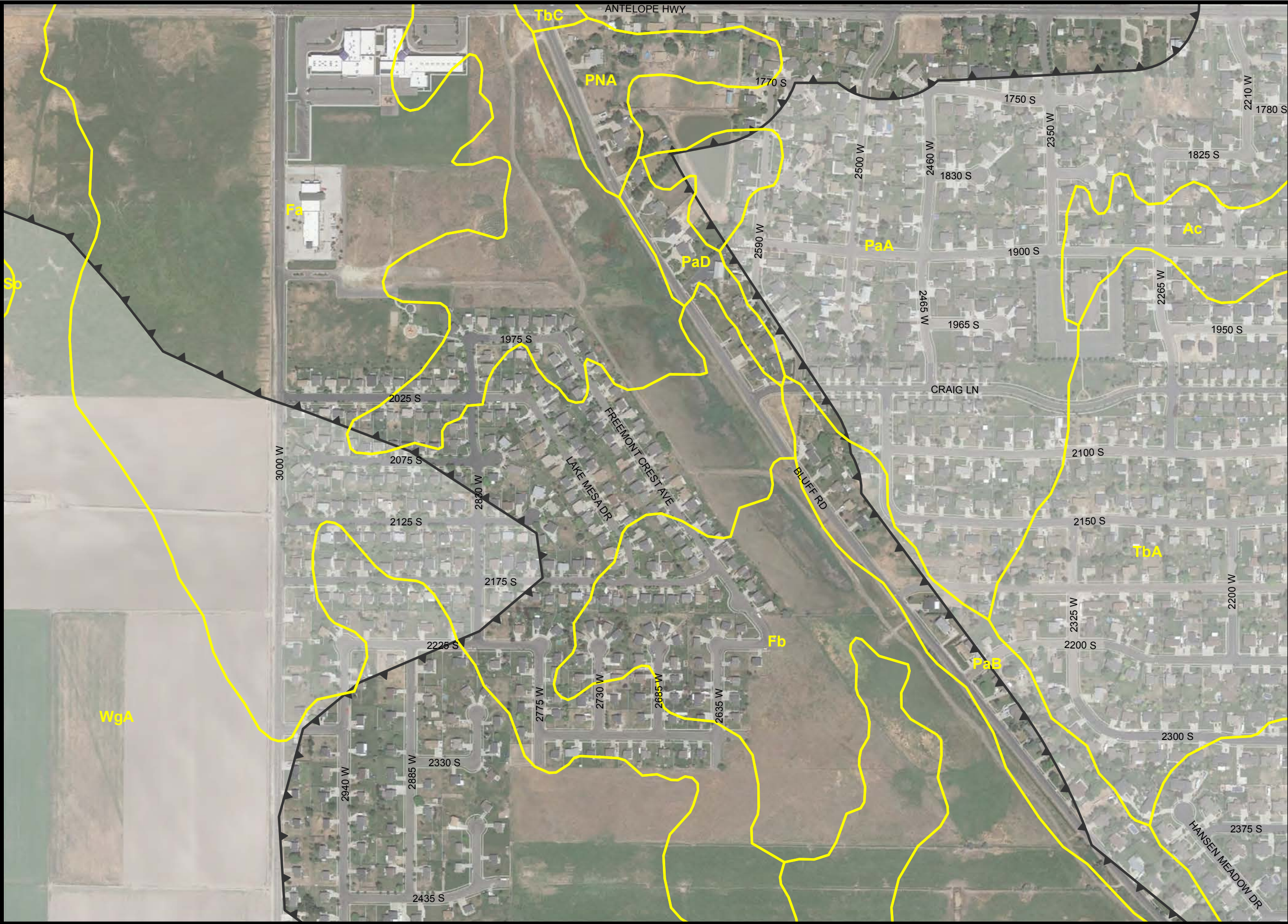
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**NRCS Soil Maps**

April 2017

**North Region**  
Sheet 27 of 37







**WEST DAVIS**  
CORRIDOR

**Legend**

-  Soil Map Unit
-  Delineation Survey Area



Great Salt Lake



1 inch = 400 feet



Feet

Image Date: Summer 2016

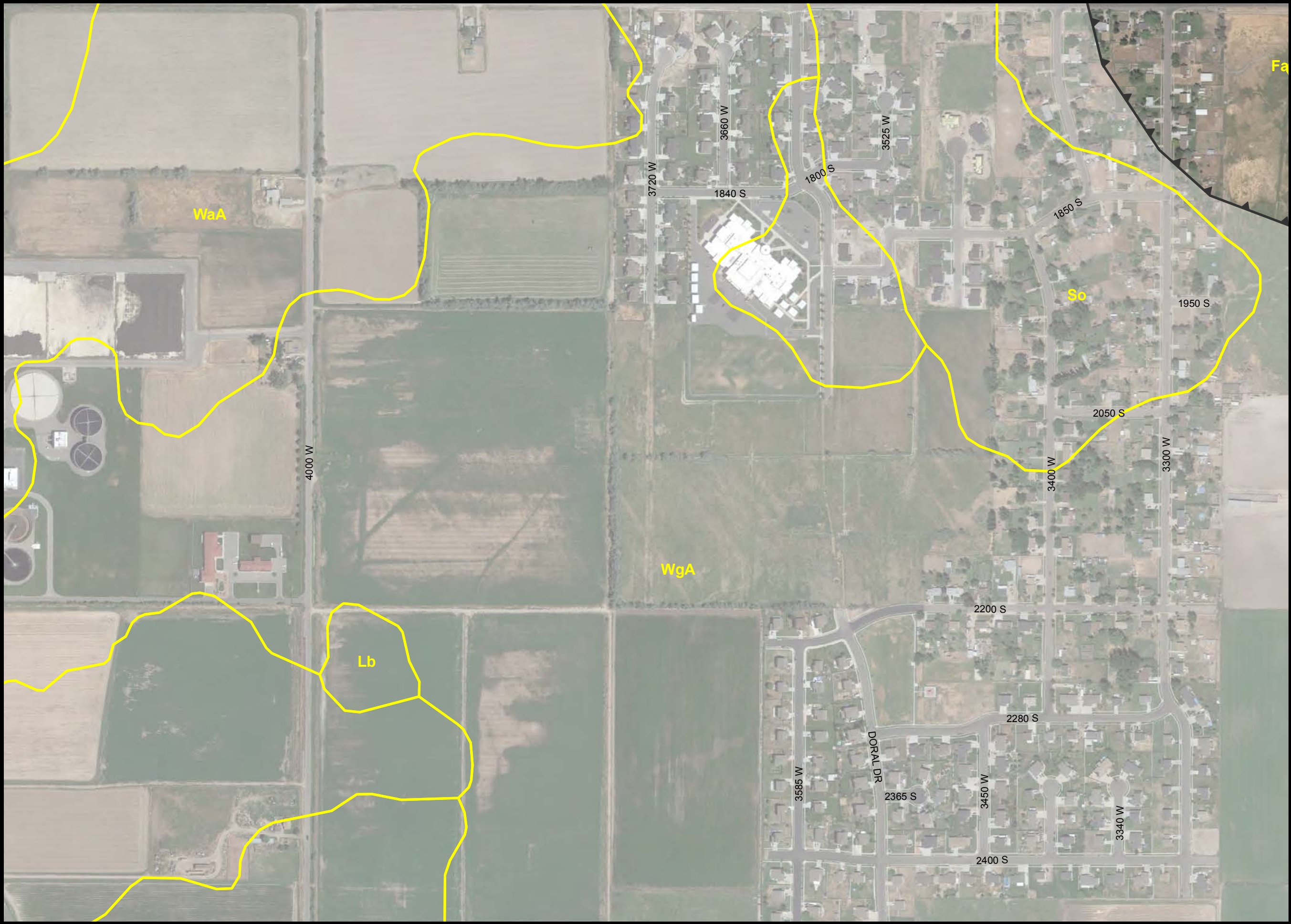
**NRCS Soil Maps**

April 2017

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**WEST DAVIS**  
CORRIDOR

**Legend**

-  Soil Map Unit
-  Delineation Survey Area





1 inch = 400 feet



200 0 200 400  
Feet

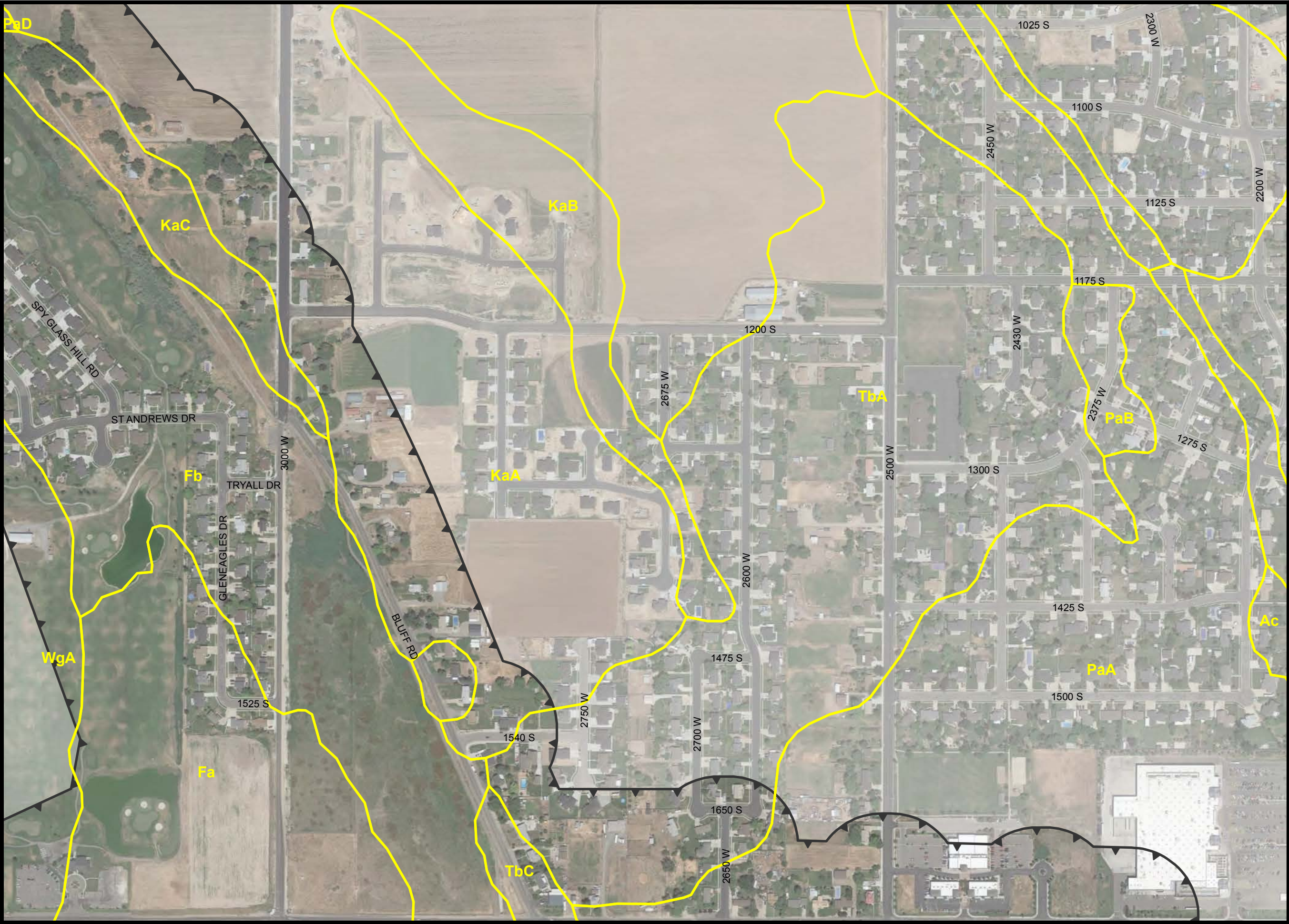
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**NRCS Soil Maps**

April 2017



**North Region**  
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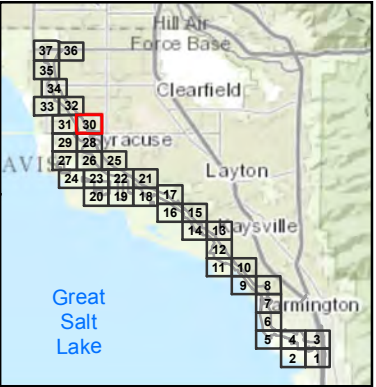




WEST DAVIS  
CORRIDOR

Legend

-  Soil Map Unit
-  Delineation Survey Area



1 inch = 400 feet

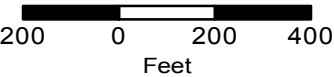


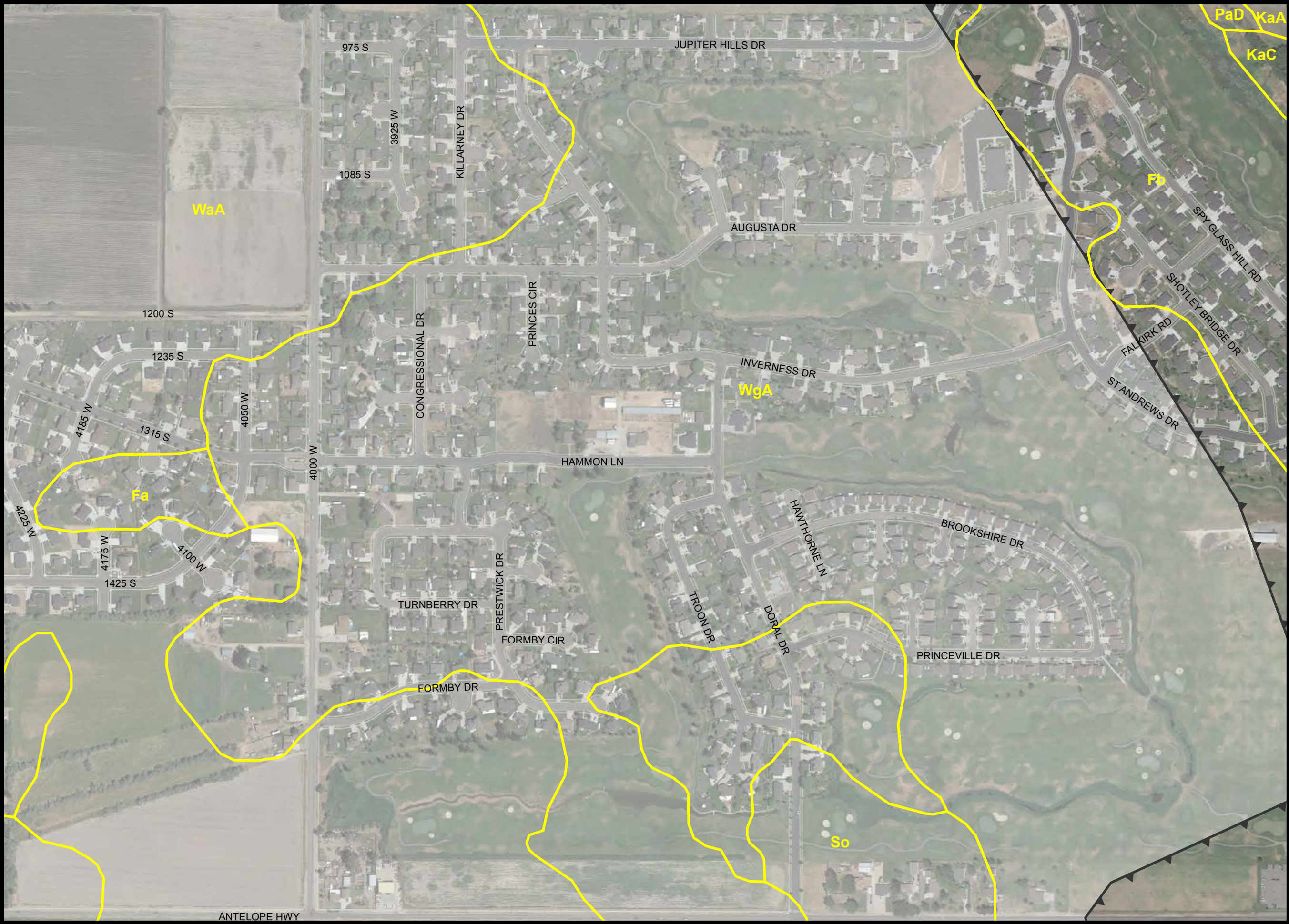
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NRCS Soil Maps

April 2017



North Region  
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## WEST DAVIS CORRIDOR

### Legend

-  Soil Map Unit
-  Delineation Survey Area



1 inch = 400 feet

200 0 200 400  
Feet

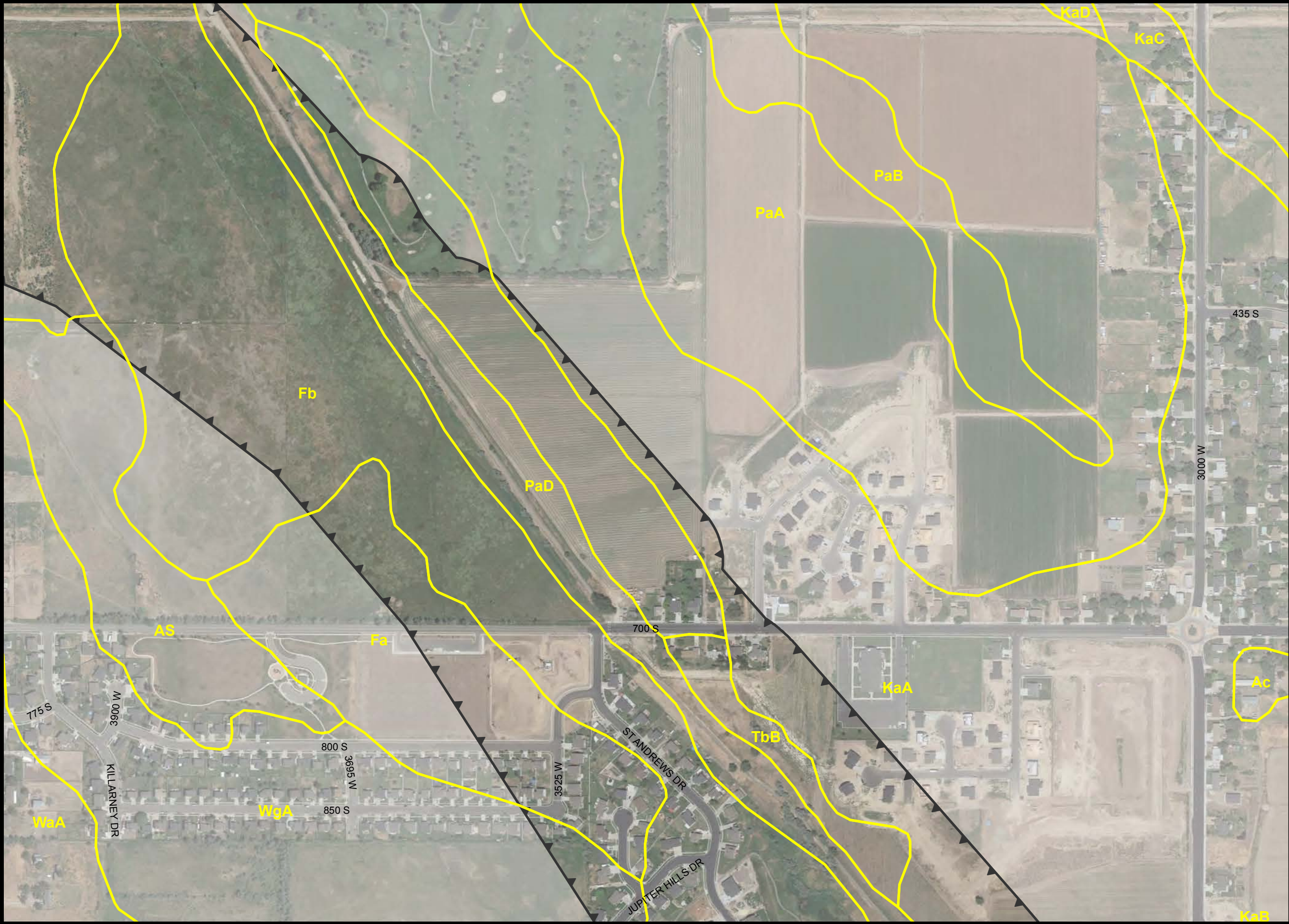
Image Date: Summer 2016

### NRCS Soil Maps

April 2017

**North Region**  
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WEST DAVIS  
CORRIDOR

Legend

- Soil Map Unit
- Delineation Survey Area



1 inch = 400 feet



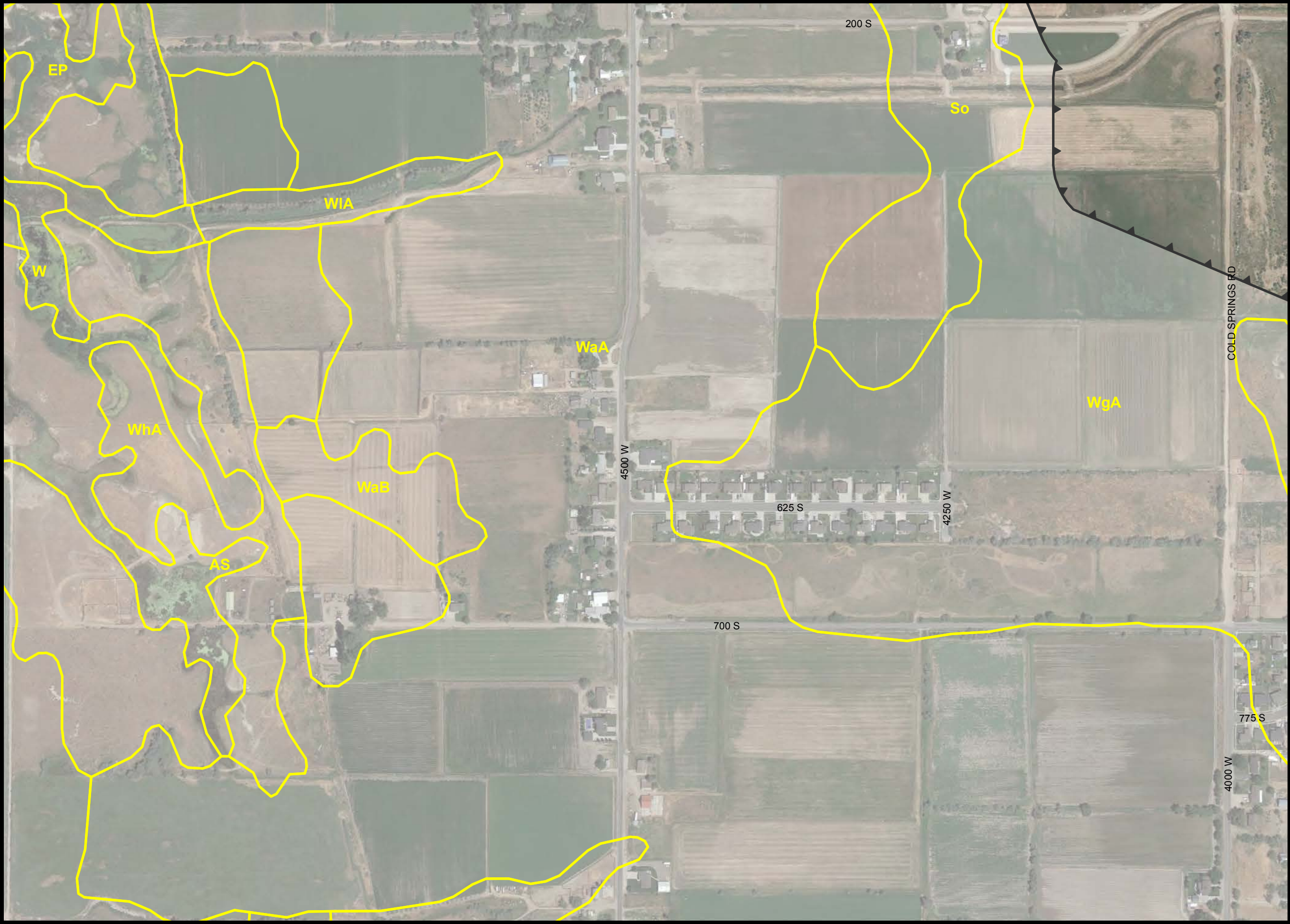
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NRCS Soil Maps

April 2017



North Region  
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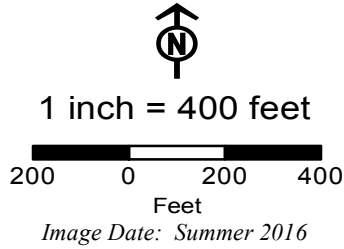
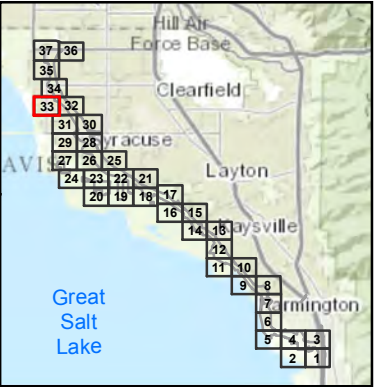




**WEST DAVIS  
CORRIDOR**

**Legend**

-  Soil Map Unit
-  Delineation Survey Area

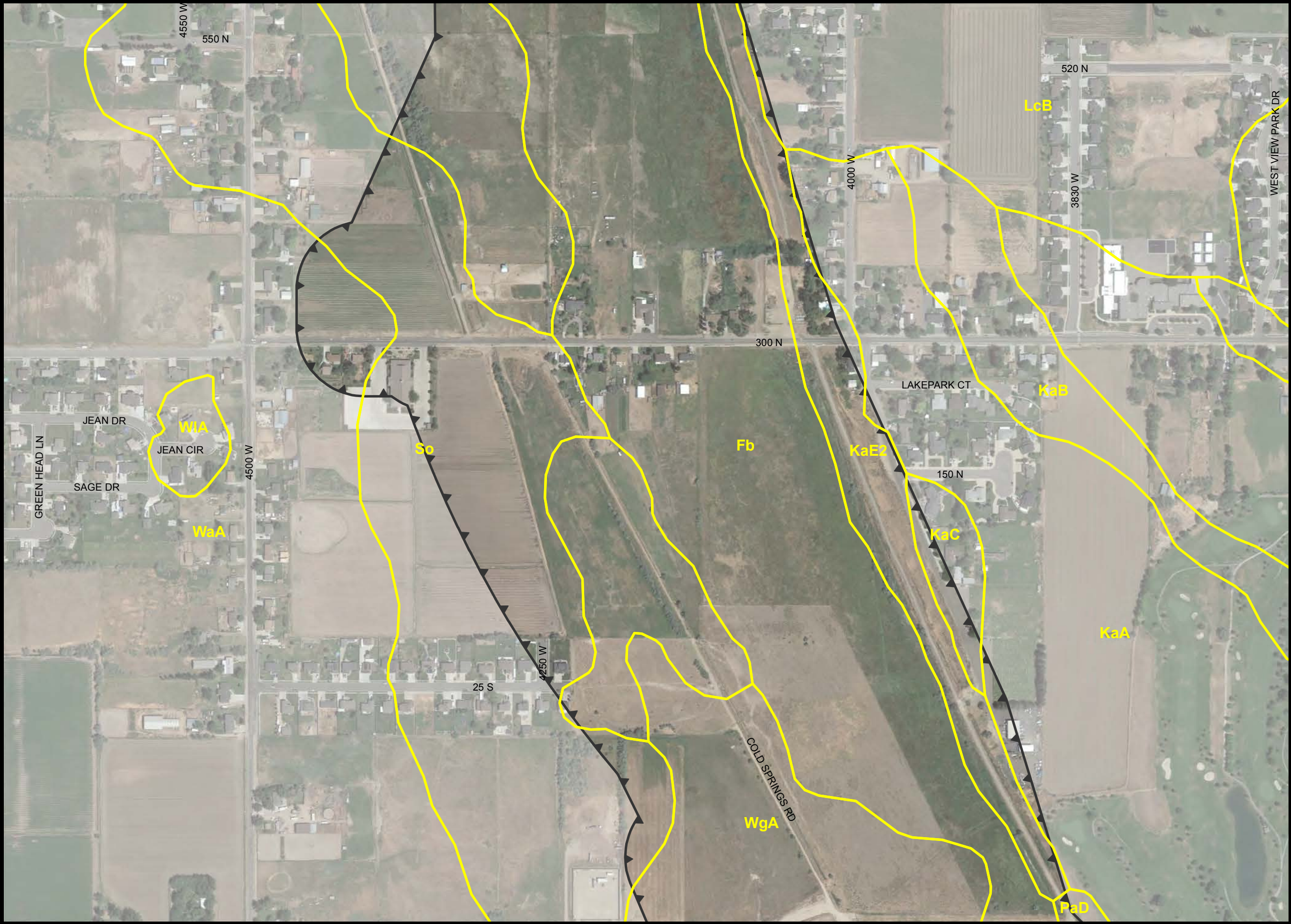


**NRCS Soil Maps**

April 2017



**North Region**  
*Sheet 33 of 37*

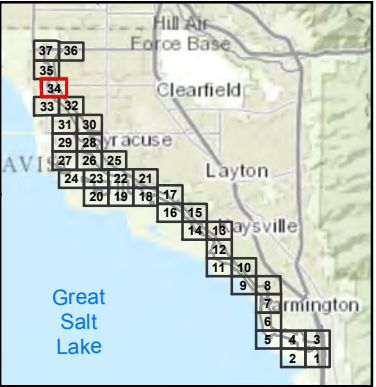




**WEST DAVIS  
CORRIDOR**

**Legend**

-  Soil Map Unit
-  Delineation Survey Area



1 inch = 400 feet



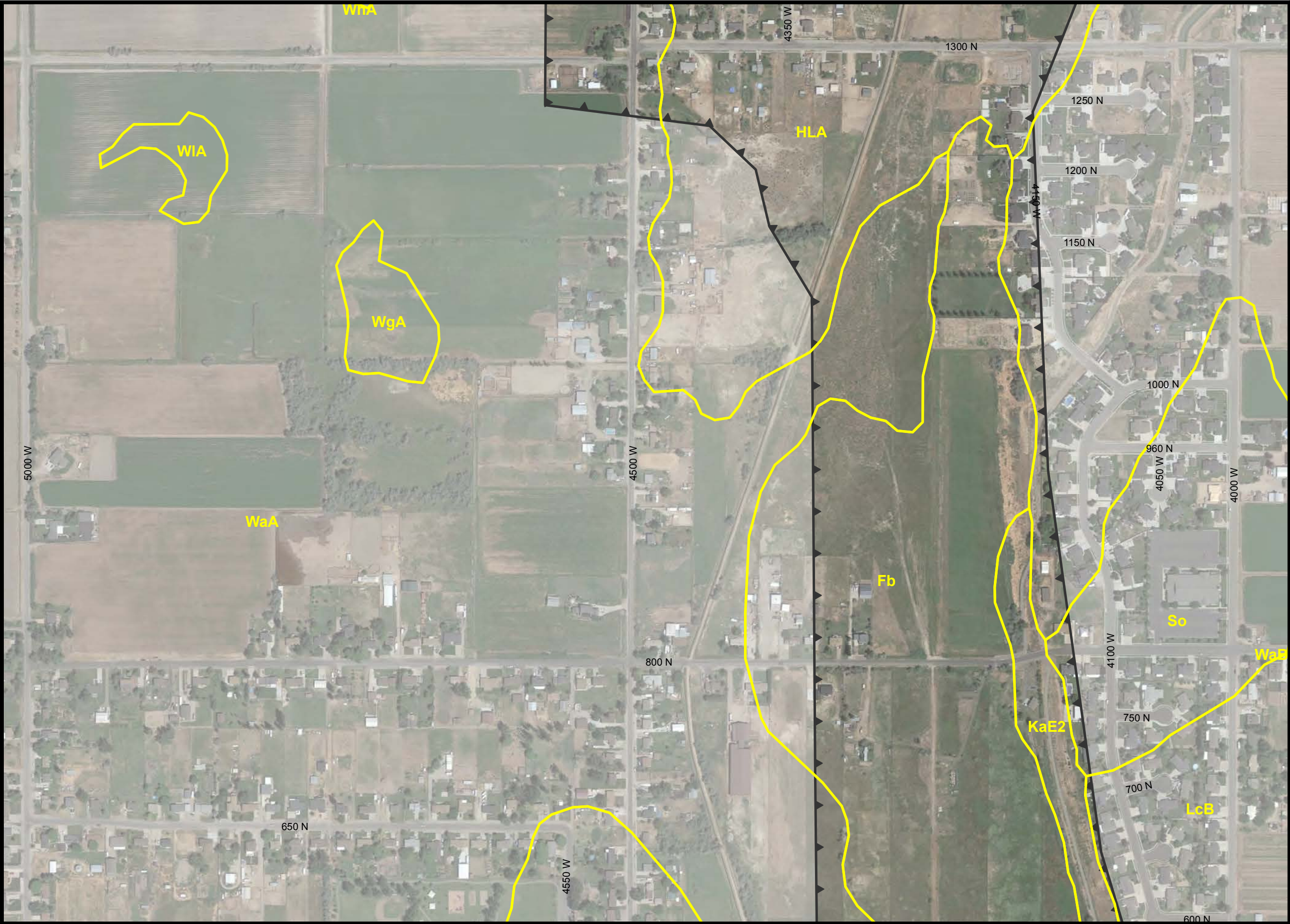
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**NRCS Soil Maps**

April 2017



**North Region**  
Sheet 34 of 37

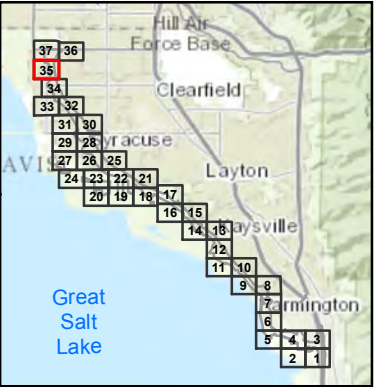




WEST DAVIS  
CORRIDOR

Legend

-  Soil Map Unit
-  Delineation Survey Area



1 inch = 400 feet

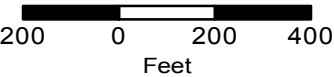


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NRCS Soil Maps

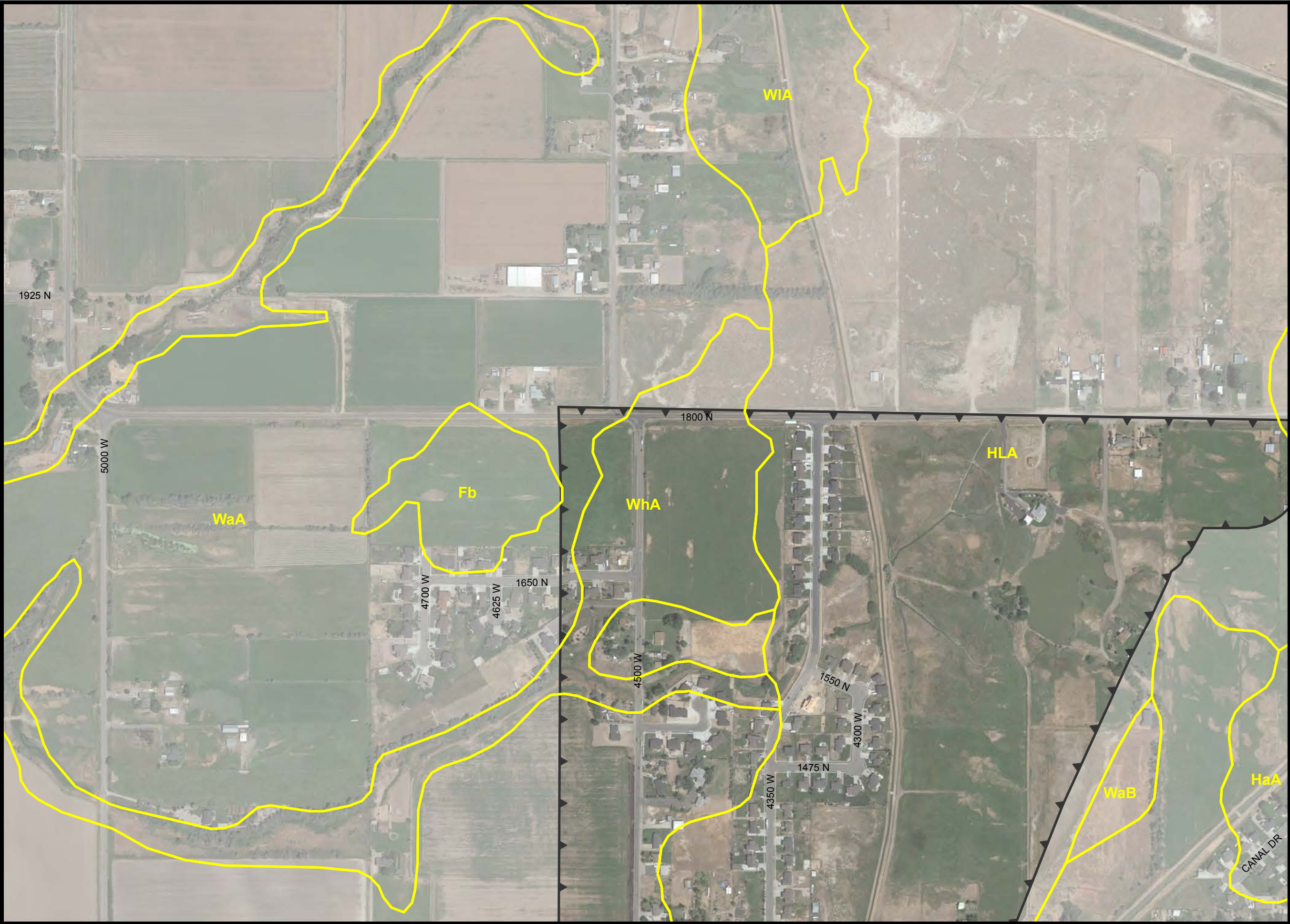
April 2017


North Region  
Sheet 35 of 37















**WEST DAVIS  
CORRIDOR**

**Legend**

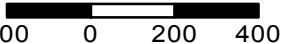
-  Soil Map Unit
-  Delineation Survey Area



Great Salt Lake



1 inch = 458 feet



200 0 200 400  
Feet

Image Date: Summer 2016

**NRCS Soil Maps**

April 2017

**North Region**  
Sheet 37 of 37

**Appendix G**  
**NRCS Custom Soil Resource Report for West Davis Corridor**





United States  
Department of  
Agriculture

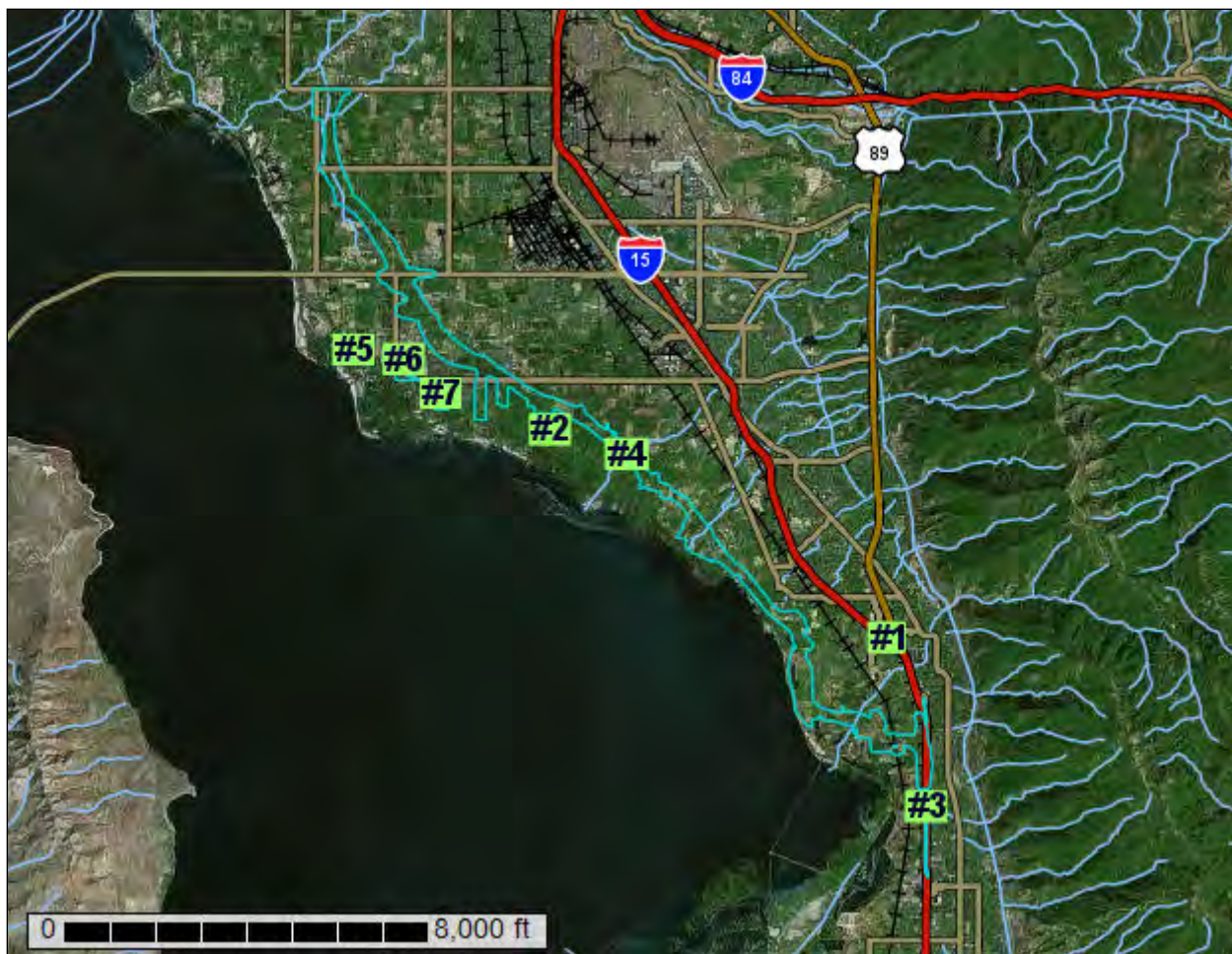
**NRCS**

Natural  
Resources  
Conservation  
Service

A product of the National  
Cooperative Soil Survey,  
a joint effort of the United  
States Department of  
Agriculture and other  
Federal agencies, State  
agencies including the  
Agricultural Experiment  
Stations, and local  
participants

# Custom Soil Resource Report for **Davis-Weber Area, Utah**

## West Davis Corridor



# Preface

---

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (<http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/>) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (<https://offices.sc.egov.usda.gov/locator/app?agency=nrcs>) or your NRCS State Soil Scientist ([http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2\\_053951](http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951)).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

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## Custom Soil Resource Report

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# How Soil Surveys Are Made

---

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil

scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and

## Custom Soil Resource Report

identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

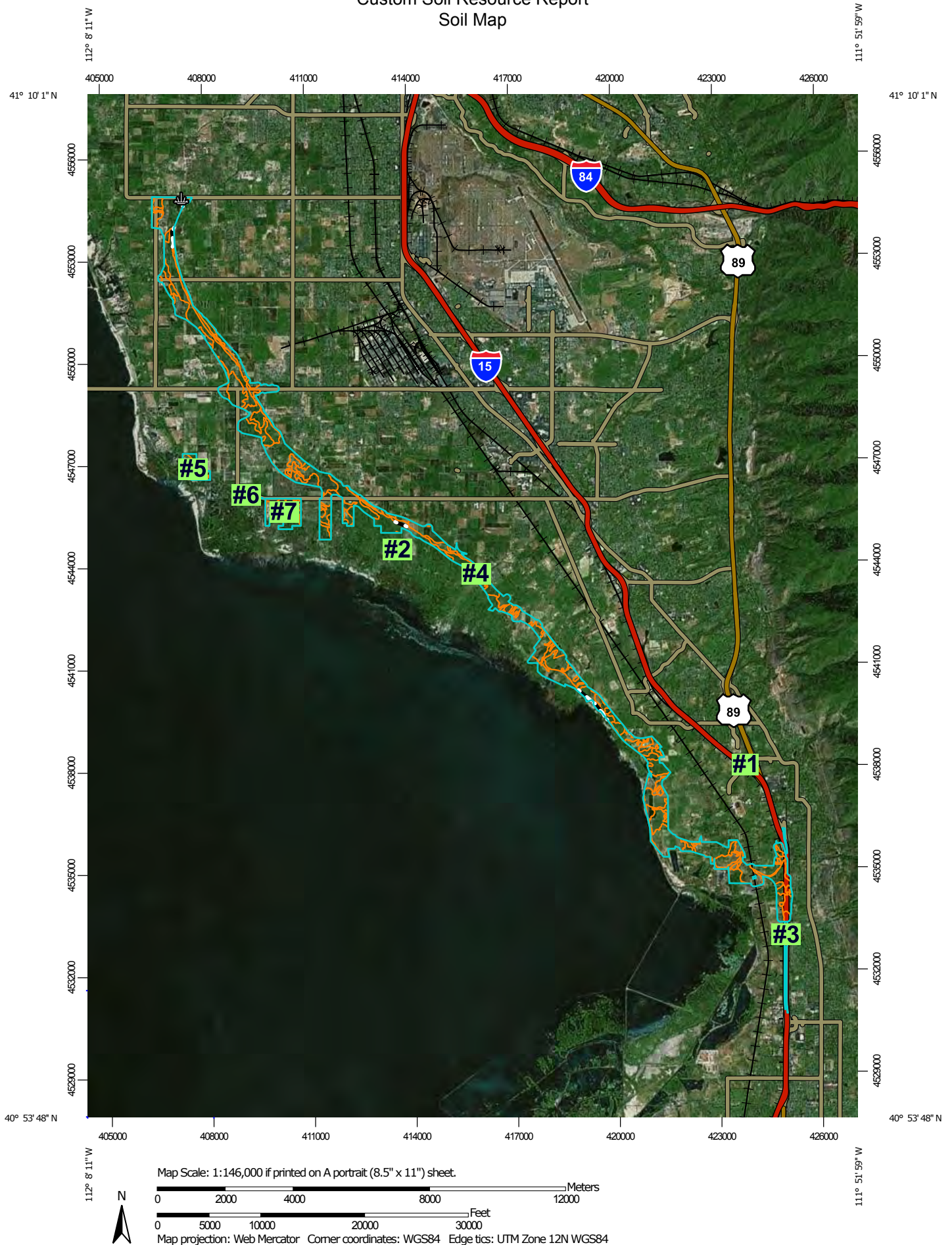


# Soil Map

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The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

# Custom Soil Resource Report Soil Map



## MAP LEGEND

### Area of Interest (AOI)

 Area of Interest (AOI)

### Soils

 Soil Map Unit Polygons

 Soil Map Unit Lines

 Soil Map Unit Points

### Special Point Features

 Blowout

 Borrow Pit

 Clay Spot


 Closed Depression

 Gravel Pit

 Gravelly Spot

 Landfill

 Lava Flow

 Marsh or swamp

 Mine or Quarry

 Miscellaneous Water

 Perennial Water

 Rock Outcrop

 Saline Spot

 Sandy Spot

 Severely Eroded Spot


 Sinkhole

 Slide or Slip

 Sodic Spot


 Spoil Area

 Stony Spot


 Very Stony Spot

 Wet Spot

 Other

 Special Line Features

### Water Features

 Streams and Canals


### Transportation

 Rails

 Interstate Highways

 US Routes

 Major Roads

 Local Roads

### Background

 Aerial Photography

## MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:15,800.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service

Web Soil Survey URL:

Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Davis-Weber Area, Utah

Survey Area Data: Version 10, Sep 9, 2016

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jan 1, 1999—Dec 31, 2003

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

## Map Unit Legend

#1, Davis-Weber Area, Utah (UT607)			
Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
DrA	Draper loam, drained, 0 to 1 percent slopes	0.9	0.0%
laA	Iron-ton silt loam, 0 to 1 percent slopes	1.0	0.0%
<b>Subtotals for #1</b>		<b>1.9</b>	<b>0.0%</b>
<b>Totals for Area of Interest</b>		<b>4,415.8</b>	<b>100.0%</b>

#2, Davis-Weber Area, Utah (UT607)			
Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
AS	Arave-Saltair complex, 0 to 1 percent slopes	6.7	0.2%
Fa	Ford loam, 0 to 1 percent slopes	0.2	0.0%
WgA	Warm Springs fine sandy loam, saline, sodic, 0 to 1 percent slopes	5.1	0.1%
<b>Subtotals for #2</b>		<b>12.0</b>	<b>0.3%</b>
<b>Totals for Area of Interest</b>		<b>4,415.8</b>	<b>100.0%</b>

#3, Davis-Weber Area, Utah (UT607)			
Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
AS	Arave-Saltair complex, 0 to 1 percent slopes	0.0	0.0%
CaA	Chance loam, 0 to 3 percent slopes	1.2	0.0%
DaB	Draper loam, 1 to 3 percent slopes	1.2	0.0%
laA	Iron-ton silt loam, 0 to 1 percent slopes	14.3	0.3%
laB	Iron-ton silt loam, 1 to 3 percent slopes	7.1	0.2%
lcA	Iron-ton silt loam, saline, sodic, 0 to 1 percent slopes	1.0	0.0%
Lw	Logan silty clay loam, shallow water table, 0 to 3 percent slopes	0.2	0.0%
Rw	Roshe Springs silt loam, 0 to 3 percent slopes	0.0	0.0%
Wt	Woods Cross silty clay loam, drained, 0 to 3 percent slopes	0.5	0.0%
<b>Subtotals for #3</b>		<b>25.5</b>	<b>0.6%</b>
<b>Totals for Area of Interest</b>		<b>4,415.8</b>	<b>100.0%</b>



# Custom Soil Resource Report

#4, Davis-Weber Area, Utah (UT607)			
Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
AbC	Ackmen loam, 3 to 6 percent slopes	2.6	0.1%
Ac	Airport silt loam, 0 to 2 percent slopes	385.4	8.7%
Ad	Airport silty clay loam, 0 to 1 percent slopes	22.2	0.5%
AS	Arave-Saltair complex, 0 to 1 percent slopes	94.3	2.1%
CIA	Chance-Ironton complex, 0 to 3 percent slopes	10.7	0.2%
Co	Cobbly alluvial land	0.1	0.0%
CuA	Cudahy silt loam, 0 to 1 percent slopes	25.3	0.6%
DaA	Draper loam, 0 to 1 percent slopes	28.2	0.6%
DrA	Draper loam, drained, 0 to 1 percent slopes	69.3	1.6%
DrB	Draper loam, drained, 1 to 3 percent slopes	6.4	0.1%
DsC	Draper gravelly loam, gravelly subsoil variant, 3 to 6 percent slopes	2.5	0.1%
EP	Eimarsh-Playas-Pintailake complex, 0 to 1 percent slopes	28.3	0.6%
Fa	Ford loam, 0 to 1 percent slopes	546.1	12.4%
Fb	Ford loam, shallow water table, 0 to 1 percent slopes	513.0	11.6%
HaA	Harrisville silt loam, 0 to 1 percent slopes	0.8	0.0%
HLA	Harrisville-Leland complex, 0 to 1 percent slopes	144.3	3.3%
IaA	Ironton silt loam, 0 to 1 percent slopes	80.4	1.8%
IaB	Ironton silt loam, 1 to 3 percent slopes	22.3	0.5%
IcA	Ironton silt loam, saline, sodic, 0 to 1 percent slopes	14.1	0.3%
IDA	Ironton-Draper complex, 0 to 3 percent slopes	122.3	2.8%
KaA	Kidman fine sandy loam, 0 to 1 percent slopes	50.7	1.1%
KaB	Kidman fine sandy loam, 1 to 3 percent slopes	11.0	0.2%
KaC	Kidman fine sandy loam, 3 to 6 percent slopes	14.7	0.3%
KaE2	Kidman fine sandy loam, 10 to 20 percent slopes, eroded	23.3	0.5%

# Custom Soil Resource Report

#4, Davis-Weber Area, Utah (UT607)			
Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
KgC	Kilburn gravelly sandy loam, 3 to 6 percent slopes	1.0	0.0%
Lb	Lakeshore fine sandy loam, 0 to 1 percent slopes	82.3	1.9%
LcB	Layton loamy fine sand, 0 to 3 percent slopes	0.7	0.0%
Lt	Logan silty clay loam, 0 to 3 percent slopes	80.6	1.8%
PaA	Parleys loam, 0 to 4 percent slopes	103.4	2.3%
PaB	Parleys loam, 1 to 3 percent slopes	133.3	3.0%
PaC	Parleys loam, 3 to 8 percent slopes	21.7	0.5%
PaD	Parleys loam, 6 to 10 percent slopes	26.8	0.6%
PEP	Pintailake-Eimarsh-Playas complex, 0 to 1 percent slopes	152.0	3.4%
PNA	Payson-Warm Springs complex, 0 to 3 percent slopes	8.2	0.2%
Rw	Roshe Springs silt loam, 0 to 3 percent slopes	6.0	0.1%
Sa	Saltair silty clay loam, 0 to 3 percent slopes	2.6	0.1%
SkA	Sunset loam, drained, 0 to 1 percent slopes	19.0	0.4%
SkB	Sunset loam, drained, 1 to 3 percent slopes	2.7	0.1%
So	Syracuse loamy fine sand, 0 to 2 percent slopes	66.0	1.5%
SPL	Saltair-Playas-Lasil complex, 0 to 1 percent slopes	6.1	0.1%
Sy	Syracuse loamy fine sand, moderately saline, sodic, 0 to 2 percent slopes	9.2	0.2%
TbA	Timpanogos loam, 0 to 1 percent slopes	81.2	1.8%
TbB	Timpanogos loam, 1 to 3 percent slopes	44.5	1.0%
TbC	Timpanogos loam, 3 to 6 percent slopes	3.4	0.1%
W	Water	2.7	0.1%
WaA	Warm Springs fine sandy loam, 0 to 1 percent slopes	406.1	9.2%
WgA	Warm Springs fine sandy loam, saline, sodic, 0 to 1 percent slopes	326.3	7.4%

# Custom Soil Resource Report

#4, Davis-Weber Area, Utah (UT607)			
Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
WhA	Warm Springs fine sandy loam, saline, sodic, 0 to 1 percent slopes, channeled	210.5	4.8%
WIA	Warm Springs fine sandy loam, shallow water table, 0 to 1 percent slopes	32.0	0.7%
Ws	Woods Cross silty clay loam, 0 to 3 percent slopes	0.3	0.0%
Wt	Woods Cross silty clay loam, drained, 0 to 3 percent slopes	19.6	0.4%
<b>Subtotals for #4</b>		<b>4,067.0</b>	<b>92.1%</b>
<b>Totals for Area of Interest</b>		<b>4,415.8</b>	<b>100.0%</b>

#5, Davis-Weber Area, Utah (UT607)			
Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
EP	Eimarsh-Playas-Pintailake complex, 0 to 1 percent slopes	9.7	0.2%
Fa	Ford loam, 0 to 1 percent slopes	20.5	0.5%
PEP	Pintailake-Eimarsh-Playas complex, 0 to 1 percent slopes	2.5	0.1%
So	Syracuse loamy fine sand, 0 to 2 percent slopes	0.0	0.0%
WaA	Warm Springs fine sandy loam, 0 to 1 percent slopes	9.6	0.2%
WgA	Warm Springs fine sandy loam, saline, sodic, 0 to 1 percent slopes	31.1	0.7%
WhA	Warm Springs fine sandy loam, saline, sodic, 0 to 1 percent slopes, channeled	11.3	0.3%
<b>Subtotals for #5</b>		<b>84.8</b>	<b>1.9%</b>
<b>Totals for Area of Interest</b>		<b>4,415.8</b>	<b>100.0%</b>

#6, Davis-Weber Area, Utah (UT607)			
Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
PEP	Pintailake-Eimarsh-Playas complex, 0 to 1 percent slopes	22.9	0.5%
WaA	Warm Springs fine sandy loam, 0 to 1 percent slopes	0.9	0.0%
WaB	Warm Springs fine sandy loam, 1 to 3 percent slopes	5.4	0.1%
<b>Subtotals for #6</b>		<b>29.2</b>	<b>0.7%</b>
<b>Totals for Area of Interest</b>		<b>4,415.8</b>	<b>100.0%</b>

## Custom Soil Resource Report

#7, Davis-Weber Area, Utah (UT607)			
Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
Ac	Airport silt loam, 0 to 2 percent slopes	0.7	0.0%
CuA	Cudahy silt loam, 0 to 1 percent slopes	0.6	0.0%
EP	Eimarsh-Playas-Pintailake complex, 0 to 1 percent slopes	2.5	0.1%
Lb	Lakeshore fine sandy loam, 0 to 1 percent slopes	1.0	0.0%
PEP	Pintailake-Eimarsh-Playas complex, 0 to 1 percent slopes	140.6	3.2%
WaA	Warm Springs fine sandy loam, 0 to 1 percent slopes	32.8	0.7%
WgA	Warm Springs fine sandy loam, saline, sodic, 0 to 1 percent slopes	10.7	0.2%
WhA	Warm Springs fine sandy loam, saline, sodic, 0 to 1 percent slopes, channeled	6.5	0.1%
<b>Subtotals for #7</b>		<b>195.4</b>	<b>4.4%</b>
<b>Totals for Area of Interest</b>		<b>4,415.8</b>	<b>100.0%</b>

## Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas



are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

## Davis-Weber Area, Utah

### AbC—Ackmen loam, 3 to 6 percent slopes

#### Map Unit Setting

*National map unit symbol:* j52d  
*Elevation:* 4,400 to 5,300 feet  
*Mean annual precipitation:* 14 to 18 inches  
*Mean annual air temperature:* 46 to 52 degrees F  
*Frost-free period:* 120 to 150 days  
*Farmland classification:* Prime farmland if irrigated

#### Map Unit Composition

*Ackmen and similar soils:* 100 percent  
*Estimates are based on observations, descriptions, and transects of the mapunit.*

#### Description of Ackmen

##### Setting

*Landform:* Alluvial fans  
*Down-slope shape:* Concave  
*Across-slope shape:* Convex  
*Parent material:* Slope alluvium

##### Typical profile

*Ap - 0 to 6 inches:* loam  
*AC - 6 to 32 inches:* loam  
*C - 32 to 60 inches:* loam

##### Properties and qualities

*Slope:* 3 to 6 percent  
*Depth to restrictive feature:* More than 80 inches  
*Natural drainage class:* Well drained  
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high to high (0.60 to 2.00 in/hr)  
*Depth to water table:* More than 80 inches  
*Frequency of flooding:* None  
*Frequency of ponding:* None  
*Salinity, maximum in profile:* Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)  
*Available water storage in profile:* High (about 9.6 inches)

##### Interpretive groups

*Land capability classification (irrigated):* 3e  
*Land capability classification (nonirrigated):* 3s  
*Hydrologic Soil Group:* B  
*Ecological site:* Upland Loam (Bonneville Big Sagebrush) North (R028AY310UT)  
*Other vegetative classification:* Upland Loam (Mountain Big Sagebrush) (028AY310UT)  
*Hydric soil rating:* No

## **Ac—Airport silt loam, 0 to 2 percent slopes**

### **Map Unit Setting**

*National map unit symbol:* j52h  
*Elevation:* 4,200 to 4,300 feet  
*Mean annual precipitation:* 14 to 18 inches  
*Mean annual air temperature:* 48 to 52 degrees F  
*Frost-free period:* 160 to 180 days  
*Farmland classification:* Not prime farmland

### **Map Unit Composition**

*Airport and similar soils:* 95 percent  
*Minor components:* 5 percent  
*Estimates are based on observations, descriptions, and transects of the mapunit.*

### **Description of Airport**

#### **Setting**

*Landform:* Lake terraces  
*Landform position (three-dimensional):* Tread  
*Down-slope shape:* Linear  
*Across-slope shape:* Linear  
*Parent material:* Lacustrine deposits

#### **Typical profile**

*H1 - 0 to 6 inches:* silty clay loam  
*H2 - 6 to 19 inches:* silty clay loam  
*H3 - 19 to 32 inches:* silty clay loam  
*H4 - 32 to 40 inches:* clay loam  
*H5 - 40 to 60 inches:* silty clay loam

#### **Properties and qualities**

*Slope:* 0 to 2 percent  
*Depth to restrictive feature:* More than 80 inches  
*Natural drainage class:* Somewhat poorly drained  
*Runoff class:* Medium  
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately low to moderately high (0.06 to 0.20 in/hr)  
*Depth to water table:* About 24 to 42 inches  
*Frequency of flooding:* Rare  
*Frequency of ponding:* None  
*Calcium carbonate, maximum in profile:* 60 percent  
*Salinity, maximum in profile:* Slightly saline to strongly saline (4.0 to 16.0 mmhos/cm)  
*Sodium adsorption ratio, maximum in profile:* 50.0  
*Available water storage in profile:* Moderate (about 8.4 inches)

#### **Interpretive groups**

*Land capability classification (irrigated):* 3w  
*Land capability classification (nonirrigated):* 7w  
*Hydrologic Soil Group:* D

## Custom Soil Resource Report

*Ecological site:* Alkali Bottom (Alkali Sacaton) (R028AY001UT)

*Hydric soil rating:* No

### Minor Components

#### **Poorly drained soils, hydric, not correlated**

*Percent of map unit:* 5 percent

*Landform:* Lake terraces

*Landform position (three-dimensional):* Tread

*Down-slope shape:* Linear

*Across-slope shape:* Linear

*Hydric soil rating:* Yes

### **Ad—Airport silty clay loam, 0 to 1 percent slopes**

#### **Map Unit Setting**

*National map unit symbol:* j52j

*Elevation:* 4,200 to 4,300 feet

*Mean annual precipitation:* 14 to 18 inches

*Mean annual air temperature:* 48 to 52 degrees F

*Frost-free period:* 160 to 180 days

*Farmland classification:* Not prime farmland

#### **Map Unit Composition**

*Airport and similar soils:* 90 percent

*Minor components:* 10 percent

*Estimates are based on observations, descriptions, and transects of the mapunit.*

#### **Description of Airport**

##### **Setting**

*Landform:* Lake terraces

*Landform position (three-dimensional):* Tread

*Down-slope shape:* Linear

*Across-slope shape:* Linear

*Parent material:* Lacustrine deposits

##### **Typical profile**

*H1 - 0 to 6 inches:* silty clay loam

*H2 - 6 to 19 inches:* silty clay loam

*H3 - 19 to 32 inches:* silty clay loam

*H4 - 32 to 40 inches:* clay loam

*H5 - 40 to 60 inches:* silty clay loam

##### **Properties and qualities**

*Slope:* 0 to 1 percent

*Depth to restrictive feature:* More than 80 inches

*Natural drainage class:* Somewhat poorly drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately low to moderately high (0.06 to 0.20 in/hr)

*Depth to water table:* About 24 to 42 inches



## Custom Soil Resource Report

*Frequency of flooding:* Rare  
*Frequency of ponding:* None  
*Calcium carbonate, maximum in profile:* 60 percent  
*Salinity, maximum in profile:* Slightly saline to strongly saline (4.0 to 16.0 mmhos/cm)  
*Sodium adsorption ratio, maximum in profile:* 50.0  
*Available water storage in profile:* Moderate (about 8.4 inches)

### Interpretive groups

*Land capability classification (irrigated):* 4w  
*Land capability classification (nonirrigated):* 7w  
*Hydrologic Soil Group:* D  
*Ecological site:* Alkali Bottom (Alkali Sacaton) (R028AY001UT)  
*Hydric soil rating:* No

### Minor Components

#### Poorly drained soils, hydric, not correlated

*Percent of map unit:* 5 percent  
*Landform:* Lake terraces  
*Landform position (three-dimensional):* Tread  
*Down-slope shape:* Linear  
*Across-slope shape:* Linear  
*Hydric soil rating:* Yes

#### Slickspots

*Percent of map unit:* 5 percent  
*Landform:* Lake terraces  
*Landform position (three-dimensional):* Tread  
*Down-slope shape:* Linear  
*Across-slope shape:* Linear  
*Hydric soil rating:* Yes

## AS—Arave-Saltair complex, 0 to 1 percent slopes

### Map Unit Setting

*National map unit symbol:* j529  
*Elevation:* 4,200 to 4,300 feet  
*Mean annual precipitation:* 14 to 18 inches  
*Mean annual air temperature:* 48 to 52 degrees F  
*Frost-free period:* 160 to 180 days  
*Farmland classification:* Not prime farmland

### Map Unit Composition

*Arave and similar soils:* 75 percent  
*Saltair and similar soils:* 20 percent  
*Minor components:* 5 percent  
*Estimates are based on observations, descriptions, and transects of the mapunit.*

## Description of Arave

### Setting

*Landform:* Lake plains  
*Landform position (three-dimensional):* Talf, dip  
*Down-slope shape:* Linear  
*Across-slope shape:* Linear  
*Parent material:* Lacustrine deposits

### Typical profile

*A1 - 0 to 8 inches:* silt loam  
*B1ca - 8 to 12 inches:* loam  
*B2tca - 12 to 18 inches:* clay loam  
*C1 - 18 to 36 inches:* silty clay loam  
*C2 - 36 to 42 inches:* silty clay loam  
*C3 - 42 to 60 inches:* silty clay loam

### Properties and qualities

*Slope:* 0 to 1 percent  
*Depth to restrictive feature:* More than 80 inches  
*Natural drainage class:* Somewhat poorly drained  
*Runoff class:* Medium  
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately low to moderately high (0.06 to 0.20 in/hr)  
*Depth to water table:* About 20 to 40 inches  
*Frequency of flooding:* Rare  
*Frequency of ponding:* None  
*Calcium carbonate, maximum in profile:* 30 percent  
*Salinity, maximum in profile:* Moderately saline to strongly saline (8.0 to 30.0 mmhos/cm)  
*Sodium adsorption ratio, maximum in profile:* 60.0  
*Available water storage in profile:* Moderate (about 7.2 inches)

### Interpretive groups

*Land capability classification (irrigated):* 7w  
*Land capability classification (nonirrigated):* 7w  
*Hydrologic Soil Group:* D  
*Ecological site:* Alkali Bottom (Alkali Sacaton) (R028AY001UT)  
*Hydric soil rating:* No

## Description of Saltair

### Setting

*Landform:* Lake plains  
*Landform position (three-dimensional):* Talf, dip  
*Down-slope shape:* Linear  
*Across-slope shape:* Linear  
*Parent material:* Lacustrine deposits

### Typical profile

*H1 - 0 to 1 inches:* silt loam  
*H2 - 1 to 4 inches:* silt loam  
*H3 - 4 to 9 inches:* silt loam  
*H4 - 9 to 20 inches:* silty clay loam  
*H5 - 20 to 32 inches:* silt loam  
*H6 - 32 to 60 inches:* silty clay loam

**Properties and qualities**

*Slope:* 0 to 1 percent  
*Depth to restrictive feature:* More than 80 inches  
*Natural drainage class:* Very poorly drained  
*Runoff class:* Very high  
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately low to moderately high (0.06 to 0.20 in/hr)  
*Depth to water table:* About 0 to 12 inches  
*Frequency of flooding:* Occasional  
*Frequency of ponding:* Occasional  
*Calcium carbonate, maximum in profile:* 40 percent  
*Gypsum, maximum in profile:* 2 percent  
*Salinity, maximum in profile:* Strongly saline (100.0 to 250.0 mmhos/cm)  
*Sodium adsorption ratio, maximum in profile:* 1,000.0  
*Available water storage in profile:* Very low (about 0.6 inches)

**Interpretive groups**

*Land capability classification (irrigated):* None specified  
*Land capability classification (nonirrigated):* 8  
*Hydrologic Soil Group:* C/D  
*Ecological site:* Desert Salty Silt (Iodinebush) (R028AY132UT)  
*Hydric soil rating:* Yes

**Minor Components**

**Croy**

*Percent of map unit:* 3 percent  
*Landform:* Lake plains

**Goggin**

*Percent of map unit:* 2 percent  
*Landform:* Dunes, ridges  
*Landform position (three-dimensional):* Riser  
*Down-slope shape:* Convex  
*Across-slope shape:* Convex, linear  
*Ecological site:* Upland Sand (Black Greasewood, Indian Ricegrass) (R028AY330UT)

**CaA—Chance loam, 0 to 3 percent slopes**

**Map Unit Setting**

*National map unit symbol:* j52p  
*Elevation:* 4,200 to 4,500 feet  
*Mean annual precipitation:* 14 to 18 inches  
*Mean annual air temperature:* 48 to 52 degrees F  
*Frost-free period:* 160 to 180 days  
*Farmland classification:* Farmland of statewide importance

### Map Unit Composition

*Chance and similar soils:* 100 percent

*Estimates are based on observations, descriptions, and transects of the mapunit.*

### Description of Chance

#### Setting

*Landform:* Depressions on lake terraces

*Landform position (three-dimensional):* Tread, dip

*Down-slope shape:* Concave, linear

*Across-slope shape:* Concave, linear

*Parent material:* Alluvium

#### Typical profile

*A11 - 0 to 3 inches:* loam

*A12 - 3 to 8 inches:* loam

*AC - 8 to 19 inches:* silt loam

*C1G - 19 to 41 inches:* loamy fine sand

*C1G - 41 to 57 inches:* loamy fine sand

*C3G - 57 to 72 inches:* fine sandy loam

#### Properties and qualities

*Slope:* 0 to 3 percent

*Depth to restrictive feature:* More than 80 inches

*Natural drainage class:* Poorly drained

*Runoff class:* Very high

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high to high (0.60 to 2.00 in/hr)

*Depth to water table:* About 0 to 18 inches

*Frequency of flooding:* Occasional

*Frequency of ponding:* None

*Calcium carbonate, maximum in profile:* 10 percent

*Salinity, maximum in profile:* Nonsaline to slightly saline (0.0 to 4.0 mmhos/cm)

*Available water storage in profile:* Moderate (about 6.9 inches)

#### Interpretive groups

*Land capability classification (irrigated):* 3w

*Land capability classification (nonirrigated):* 7w

*Hydrologic Soil Group:* B/D

*Ecological site:* Wet Fresh Meadow (R028AY020UT)

*Hydric soil rating:* Yes

## CIA—Chance-Ironton complex, 0 to 3 percent slopes

### Map Unit Setting

*National map unit symbol:* j52n

*Elevation:* 4,200 to 4,500 feet

*Mean annual precipitation:* 14 to 18 inches

*Mean annual air temperature:* 48 to 52 degrees F

*Frost-free period:* 160 to 180 days

*Farmland classification:* Not prime farmland



### Map Unit Composition

*Chance and similar soils:* 80 percent

*Ironton and similar soils:* 20 percent

*Estimates are based on observations, descriptions, and transects of the mapunit.*

### Description of Chance

#### Setting

*Landform:* Depressions

*Landform position (three-dimensional):* Dip

*Down-slope shape:* Concave

*Across-slope shape:* Concave

*Parent material:* Alluvium

#### Typical profile

*A11 - 0 to 3 inches:* loam

*A12 - 3 to 8 inches:* loam

*AC - 8 to 19 inches:* silt loam

*C1G - 19 to 41 inches:* loamy fine sand

*C1G - 41 to 57 inches:* loamy fine sand

*C3G - 57 to 72 inches:* fine sandy loam

#### Properties and qualities

*Slope:* 0 to 3 percent

*Depth to restrictive feature:* More than 80 inches

*Natural drainage class:* Poorly drained

*Runoff class:* Very high

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high to high (0.60 to 2.00 in/hr)

*Depth to water table:* About 0 to 18 inches

*Frequency of flooding:* Occasional

*Frequency of ponding:* None

*Calcium carbonate, maximum in profile:* 10 percent

*Salinity, maximum in profile:* Nonsaline to slightly saline (0.0 to 4.0 mmhos/cm)

*Available water storage in profile:* Moderate (about 6.9 inches)

#### Interpretive groups

*Land capability classification (irrigated):* 3w

*Land capability classification (nonirrigated):* 7w

*Hydrologic Soil Group:* B/D

*Ecological site:* Wet Fresh Meadow (R028AY020UT)

*Hydric soil rating:* Yes

### Description of Ironton

#### Setting

*Landform:* Knolls on lake terraces

*Landform position (three-dimensional):* Tread

*Down-slope shape:* Convex, linear

*Across-slope shape:* Convex, linear

*Parent material:* Alluvium and/or lacustrine deposits

#### Typical profile

*A11 - 0 to 6 inches:* silt loam

*A12 - 6 to 16 inches:* silt loam

*A13ca - 16 to 21 inches:* loam

## Custom Soil Resource Report

*C1ca - 21 to 36 inches:* loam  
*C2ca - 36 to 48 inches:* silt loam  
*C3 - 48 to 60 inches:* silt loam

### Properties and qualities

*Slope:* 0 to 3 percent  
*Depth to restrictive feature:* More than 80 inches  
*Natural drainage class:* Somewhat poorly drained  
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high to high (0.60 to 2.00 in/hr)  
*Depth to water table:* About 24 to 36 inches  
*Frequency of flooding:* Rare  
*Frequency of ponding:* None  
*Calcium carbonate, maximum in profile:* 40 percent  
*Salinity, maximum in profile:* Nonsaline to slightly saline (0.0 to 4.0 mmhos/cm)  
*Sodium adsorption ratio, maximum in profile:* 13.0  
*Available water storage in profile:* High (about 10.0 inches)

### Interpretive groups

*Land capability classification (irrigated):* 2w  
*Land capability classification (nonirrigated):* 4w  
*Hydrologic Soil Group:* C  
*Ecological site:* Semiwet Fresh Meadow (R028AY012UT)  
*Hydric soil rating:* No

## Co—Cobbly alluvial land

### Map Unit Setting

*National map unit symbol:* j52q  
*Elevation:* 4,200 to 4,500 feet  
*Mean annual precipitation:* 14 to 18 inches  
*Mean annual air temperature:* 48 to 52 degrees F  
*Frost-free period:* 160 to 180 days  
*Farmland classification:* Not prime farmland

### Map Unit Composition

*Cobbly alluvial land:* 90 percent  
*Minor components:* 10 percent  
*Estimates are based on observations, descriptions, and transects of the mapunit.*

### Description of Cobbly Alluvial Land

#### Setting

*Landform:* Flood plains  
*Landform position (three-dimensional):* Talf, dip  
*Down-slope shape:* Linear  
*Across-slope shape:* Concave

#### Typical profile

*C - 0 to 60 inches:* stratified cobbly sand to sand to fine sandy loam

**Properties and qualities**

*Natural drainage class:* Somewhat poorly drained  
*Frequency of flooding:* Frequent

**Interpretive groups**

*Land capability classification (irrigated):* None specified  
*Land capability classification (nonirrigated):* 8w  
*Hydric soil rating:* Yes

**Minor Components**

**Poorly drained soils, hydric, not correlated**

*Percent of map unit:* 10 percent  
*Landform:* Flood plains  
*Landform position (three-dimensional):* Talf, dip  
*Down-slope shape:* Linear  
*Across-slope shape:* Concave  
*Hydric soil rating:* Yes

**CuA—Cudahy silt loam, 0 to 1 percent slopes**

**Map Unit Setting**

*National map unit symbol:* j52s  
*Elevation:* 4,200 to 4,450 feet  
*Mean annual precipitation:* 14 to 18 inches  
*Mean annual air temperature:* 48 to 52 degrees F  
*Frost-free period:* 160 to 180 days  
*Farmland classification:* Not prime farmland

**Map Unit Composition**

*Cudahy and similar soils:* 100 percent  
*Estimates are based on observations, descriptions, and transects of the mapunit.*

**Description of Cudahy**

**Setting**

*Landform:* Lake terraces  
*Landform position (three-dimensional):* Tread  
*Down-slope shape:* Linear  
*Across-slope shape:* Linear  
*Parent material:* Lacustrine deposits

**Typical profile**

*A1 - 0 to 6 inches:* silt loam  
*A12ca - 6 to 16 inches:* silt loam  
*C1cag - 16 to 23 inches:* silt loam  
*C2cam - 23 to 31 inches:* indurated  
*C3cam - 31 to 44 inches:* indurated  
*C4g - 44 to 60 inches:* silty clay loam

**Properties and qualities**

*Slope:* 0 to 1 percent  
*Depth to restrictive feature:* 20 to 40 inches to petrocalcic  
*Natural drainage class:* Poorly drained  
*Runoff class:* Very high  
*Capacity of the most limiting layer to transmit water (Ksat):* Very low to moderately low (0.00 to 0.06 in/hr)  
*Depth to water table:* About 0 to 24 inches  
*Frequency of flooding:* Occasional  
*Frequency of ponding:* None  
*Calcium carbonate, maximum in profile:* 75 percent  
*Salinity, maximum in profile:* Nonsaline to slightly saline (0.0 to 4.0 mmhos/cm)  
*Sodium adsorption ratio, maximum in profile:* 30.0  
*Available water storage in profile:* Low (about 3.9 inches)

**Interpretive groups**

*Land capability classification (irrigated):* 3w  
*Land capability classification (nonirrigated):* 7w  
*Hydrologic Soil Group:* D  
*Ecological site:* Wet Fresh Meadow (R028AY020UT)  
*Hydric soil rating:* Yes

**DaA—Draper loam, 0 to 1 percent slopes**

**Map Unit Setting**

*National map unit symbol:* j52t  
*Elevation:* 4,250 to 5,000 feet  
*Mean annual precipitation:* 14 to 18 inches  
*Mean annual air temperature:* 48 to 52 degrees F  
*Frost-free period:* 130 to 175 days  
*Farmland classification:* Prime farmland if irrigated and drained

**Map Unit Composition**

*Draper and similar soils:* 90 percent  
*Minor components:* 10 percent  
*Estimates are based on observations, descriptions, and transects of the mapunit.*

**Description of Draper**

**Setting**

*Landform:* Depressions on flood plains  
*Landform position (three-dimensional):* Talf, dip  
*Down-slope shape:* Linear, concave  
*Across-slope shape:* Concave  
*Parent material:* Alluvium

**Typical profile**

*Ap - 0 to 8 inches:* loam  
*A12 - 8 to 21 inches:* loam  
*A13 - 21 to 30 inches:* loam  
*C1 - 30 to 53 inches:* loam



## Custom Soil Resource Report

*C2 - 53 to 60 inches: loam*

### **Properties and qualities**

*Slope: 0 to 1 percent*

*Depth to restrictive feature: More than 80 inches*

*Natural drainage class: Somewhat poorly drained*

*Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.60 to 2.00 in/hr)*

*Depth to water table: About 24 to 36 inches*

*Frequency of flooding: Rare*

*Frequency of ponding: None*

*Calcium carbonate, maximum in profile: 5 percent*

*Salinity, maximum in profile: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)*

*Available water storage in profile: High (about 9.6 inches)*

### **Interpretive groups**

*Land capability classification (irrigated): 2w*

*Land capability classification (nonirrigated): 4w*

*Hydrologic Soil Group: C*

*Ecological site: Semiwet Fresh Meadow (R028AY012UT)*

*Hydric soil rating: No*

### **Minor Components**

#### **Poorly drained soils**

*Percent of map unit: 10 percent*

*Landform: Flood plains*

*Landform position (three-dimensional): Talf, dip*

*Down-slope shape: Linear*

*Across-slope shape: Concave*

*Hydric soil rating: Yes*

## **DaB—Draper loam, 1 to 3 percent slopes**

### **Map Unit Setting**

*National map unit symbol: j52v*

*Elevation: 4,250 to 5,000 feet*

*Mean annual precipitation: 14 to 18 inches*

*Mean annual air temperature: 48 to 52 degrees F*

*Frost-free period: 130 to 175 days*

*Farmland classification: Prime farmland if irrigated and drained*

### **Map Unit Composition**

*Draper and similar soils: 95 percent*

*Minor components: 5 percent*

*Estimates are based on observations, descriptions, and transects of the mapunit.*

## Description of Draper

### Setting

*Landform:* Flood plains, depressions  
*Landform position (three-dimensional):* Talf, dip  
*Down-slope shape:* Linear, concave  
*Across-slope shape:* Concave  
*Parent material:* Alluvium

### Typical profile

*Ap - 0 to 8 inches:* loam  
*A12 - 8 to 21 inches:* loam  
*A13 - 21 to 30 inches:* loam  
*C1 - 30 to 53 inches:* loam  
*C2 - 53 to 60 inches:* loam

### Properties and qualities

*Slope:* 1 to 3 percent  
*Depth to restrictive feature:* More than 80 inches  
*Natural drainage class:* Somewhat poorly drained  
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high to high (0.60 to 2.00 in/hr)  
*Depth to water table:* About 24 to 36 inches  
*Frequency of flooding:* Rare  
*Frequency of ponding:* None  
*Calcium carbonate, maximum in profile:* 5 percent  
*Salinity, maximum in profile:* Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)  
*Available water storage in profile:* High (about 9.6 inches)

### Interpretive groups

*Land capability classification (irrigated):* 2w  
*Land capability classification (nonirrigated):* 4w  
*Hydrologic Soil Group:* C  
*Ecological site:* Semiwet Fresh Meadow (R028AY012UT)  
*Hydric soil rating:* No

## Minor Components

### Poorly drained soils, hydric, not correlated

*Percent of map unit:* 5 percent  
*Landform:* Flood plains  
*Landform position (three-dimensional):* Talf, dip  
*Down-slope shape:* Linear  
*Across-slope shape:* Concave  
*Hydric soil rating:* Yes

## **DrA—Draper loam, drained, 0 to 1 percent slopes**

### **Map Unit Setting**

*National map unit symbol:* j52w  
*Elevation:* 4,250 to 5,000 feet  
*Mean annual precipitation:* 14 to 18 inches  
*Mean annual air temperature:* 48 to 52 degrees F  
*Frost-free period:* 130 to 175 days  
*Farmland classification:* Prime farmland if irrigated and drained

### **Map Unit Composition**

*Draper and similar soils:* 95 percent  
*Minor components:* 5 percent  
*Estimates are based on observations, descriptions, and transects of the mapunit.*

### **Description of Draper**

#### **Setting**

*Landform:* Flood plains  
*Landform position (three-dimensional):* Talf, dip  
*Down-slope shape:* Linear  
*Across-slope shape:* Concave  
*Parent material:* Alluvium

#### **Typical profile**

*Ap - 0 to 8 inches:* loam  
*A12 - 8 to 21 inches:* loam  
*A13 - 21 to 30 inches:* loam  
*C1 - 30 to 53 inches:* loam  
*C2 - 53 to 60 inches:* loam

#### **Properties and qualities**

*Slope:* 0 to 1 percent  
*Depth to restrictive feature:* More than 80 inches  
*Natural drainage class:* Somewhat poorly drained  
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high to high (0.60 to 2.00 in/hr)  
*Depth to water table:* About 36 to 60 inches  
*Frequency of flooding:* Rare  
*Frequency of ponding:* None  
*Calcium carbonate, maximum in profile:* 5 percent  
*Salinity, maximum in profile:* Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)  
*Available water storage in profile:* High (about 9.6 inches)

#### **Interpretive groups**

*Land capability classification (irrigated):* 2w  
*Land capability classification (nonirrigated):* 4w  
*Hydrologic Soil Group:* B  
*Ecological site:* Semiwet Fresh Meadow (R028AY012UT)

*Hydric soil rating:* No

**Minor Components**

**Poorly drained soils**

*Percent of map unit:* 5 percent

*Landform:* Flood plains

*Landform position (three-dimensional):* Talf, dip

*Down-slope shape:* Linear

*Across-slope shape:* Concave

*Hydric soil rating:* Yes

**DrB—Draper loam, drained, 1 to 3 percent slopes**

**Map Unit Setting**

*National map unit symbol:* j52x

*Elevation:* 4,250 to 5,000 feet

*Mean annual precipitation:* 14 to 18 inches

*Mean annual air temperature:* 48 to 52 degrees F

*Frost-free period:* 130 to 175 days

*Farmland classification:* Prime farmland if irrigated and drained

**Map Unit Composition**

*Draper and similar soils:* 100 percent

*Estimates are based on observations, descriptions, and transects of the mapunit.*

**Description of Draper**

**Setting**

*Landform:* Flood plains, alluvial fans

*Landform position (three-dimensional):* Talf, dip

*Down-slope shape:* Linear, concave

*Across-slope shape:* Concave, convex

*Parent material:* Alluvium

**Typical profile**

*Ap - 0 to 8 inches:* loam

*A12 - 8 to 21 inches:* loam

*A13 - 21 to 30 inches:* loam

*C1 - 30 to 53 inches:* loam

*C2 - 53 to 60 inches:* loam

**Properties and qualities**

*Slope:* 1 to 3 percent

*Depth to restrictive feature:* More than 80 inches

*Natural drainage class:* Somewhat poorly drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high to high (0.60 to 2.00 in/hr)

*Depth to water table:* About 36 to 60 inches

*Frequency of flooding:* Rare

*Frequency of ponding:* None



## Custom Soil Resource Report

*Calcium carbonate, maximum in profile:* 5 percent

*Salinity, maximum in profile:* Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)

*Available water storage in profile:* High (about 9.6 inches)

### Interpretive groups

*Land capability classification (irrigated):* 2w

*Land capability classification (nonirrigated):* 4w

*Hydrologic Soil Group:* B

*Ecological site:* Semiwet Fresh Meadow (R028AY012UT)

*Hydric soil rating:* No

## DsC—Draper gravelly loam, gravelly subsoil variant, 3 to 6 percent slopes

### Map Unit Setting

*National map unit symbol:* j530

*Elevation:* 4,250 to 5,000 feet

*Mean annual precipitation:* 14 to 18 inches

*Mean annual air temperature:* 46 to 52 degrees F

*Frost-free period:* 130 to 175 days

*Farmland classification:* Prime farmland if irrigated and drained

### Map Unit Composition

*Draper variant and similar soils:* 100 percent

*Estimates are based on observations, descriptions, and transects of the mapunit.*

### Description of Draper Variant

#### Setting

*Landform:* Alluvial fans

*Down-slope shape:* Concave

*Across-slope shape:* Convex

*Parent material:* Alluvium

#### Typical profile

*H1 - 0 to 8 inches:* gravelly loam

*H2 - 8 to 24 inches:* gravelly loam

*H3 - 24 to 60 inches:* gravelly loamy fine sand

#### Properties and qualities

*Slope:* 3 to 6 percent

*Depth to restrictive feature:* More than 80 inches

*Natural drainage class:* Somewhat poorly drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high to high (0.60 to 2.00 in/hr)

*Depth to water table:* About 36 to 60 inches

*Frequency of flooding:* Very rare

*Frequency of ponding:* None

*Calcium carbonate, maximum in profile:* 5 percent

*Salinity, maximum in profile:* Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)

*Available water storage in profile:* Moderate (about 7.1 inches)

**Interpretive groups**

*Land capability classification (irrigated):* 3w

*Land capability classification (nonirrigated):* 3w

*Hydrologic Soil Group:* B

*Ecological site:* Semiwet Fresh Meadow (R028AY012UT)

*Hydric soil rating:* No

**EP—Eimarsh-Playas-Pintailake complex, 0 to 1 percent slopes**

**Map Unit Setting**

*National map unit symbol:* 1qr61

*Elevation:* 4,190 to 4,290 feet

*Mean annual precipitation:* 12 to 16 inches

*Mean annual air temperature:* 48 to 52 degrees F

*Frost-free period:* 140 to 180 days

*Farmland classification:* Not prime farmland

**Map Unit Composition**

*Eimarsh and similar soils:* 60 percent

*Playas:* 15 percent

*Pintailake and similar soils:* 10 percent

*Minor components:* 15 percent

*Estimates are based on observations, descriptions, and transects of the mapunit.*

**Description of Eimarsh**

**Setting**

*Landform:* Lake plains

*Landform position (three-dimensional):* Talf, dip

*Down-slope shape:* Linear

*Across-slope shape:* Linear

**Typical profile**

*H1 - 0 to 5 inches:* silty clay loam

*H2 - 5 to 15 inches:* silty clay

*H3 - 15 to 60 inches:* silty clay

**Properties and qualities**

*Slope:* 0 to 1 percent

*Depth to restrictive feature:* More than 80 inches

*Natural drainage class:* Poorly drained

*Runoff class:* Medium

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately low to moderately high (0.06 to 0.20 in/hr)

*Depth to water table:* About 10 to 20 inches

*Frequency of flooding:* None

*Frequency of ponding:* Frequent

*Calcium carbonate, maximum in profile:* 30 percent

*Gypsum, maximum in profile:* 10 percent

*Salinity, maximum in profile:* Strongly saline (30.0 to 80.0 mmhos/cm)

## Custom Soil Resource Report

*Sodium adsorption ratio, maximum in profile:* 100.0

*Available water storage in profile:* Very low (about 2.3 inches)

### Interpretive groups

*Land capability classification (irrigated):* None specified

*Land capability classification (nonirrigated):* 7w

*Hydrologic Soil Group:* C/D

*Ecological site:* Wet Saline Meadow (Saltgrass) (R028AY024UT)

*Hydric soil rating:* Yes

### Description of Playas

#### Setting

*Landform:* Lake plains

*Landform position (three-dimensional):* Talf, dip

*Down-slope shape:* Linear

*Across-slope shape:* Linear

#### Typical profile

*H1 - 0 to 60 inches:* stratified fine sandy loam to silty clay

#### Properties and qualities

*Slope:* 0 to 1 percent

*Natural drainage class:* Very poorly drained

*Runoff class:* Negligible

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately low to moderately high (0.06 to 0.20 in/hr)

*Depth to water table:* About 0 inches

*Frequency of ponding:* Frequent

*Calcium carbonate, maximum in profile:* 40 percent

*Gypsum, maximum in profile:* 2 percent

*Salinity, maximum in profile:* Strongly saline (32.0 to 100.0 mmhos/cm)

*Sodium adsorption ratio, maximum in profile:* 90.0

*Available water storage in profile:* Very low (about 1.2 inches)

### Interpretive groups

*Land capability classification (irrigated):* None specified

*Land capability classification (nonirrigated):* 8w

*Hydrologic Soil Group:* D

*Ecological site:* Desert Salty Silt (Iodinebush) (R028AY132UT)

*Hydric soil rating:* Yes

### Description of Pintailake

#### Setting

*Landform:* Lake plains

*Landform position (three-dimensional):* Talf, dip

*Down-slope shape:* Linear

*Across-slope shape:* Linear

#### Typical profile

*Oi - 0 to 3 inches:* slightly decomposed plant material

*H1 - 3 to 10 inches:* silt loam

*H2 - 10 to 31 inches:* silty clay loam

*H3 - 31 to 46 inches:* silty clay

*H4 - 46 to 60 inches:* silty clay

**Properties and qualities**

*Slope:* 0 to 1 percent  
*Depth to restrictive feature:* More than 80 inches  
*Natural drainage class:* Very poorly drained  
*Runoff class:* Medium  
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately low to moderately high (0.06 to 0.20 in/hr)  
*Depth to water table:* About 0 to 10 inches  
*Frequency of flooding:* None  
*Frequency of ponding:* Frequent  
*Calcium carbonate, maximum in profile:* 30 percent  
*Gypsum, maximum in profile:* 5 percent  
*Salinity, maximum in profile:* Moderately saline to strongly saline (10.0 to 33.0 mmhos/cm)  
*Sodium adsorption ratio, maximum in profile:* 100.0  
*Available water storage in profile:* Moderate (about 7.1 inches)

**Interpretive groups**

*Land capability classification (irrigated):* None specified  
*Land capability classification (nonirrigated):* 7w  
*Hydrologic Soil Group:* C/D  
*Ecological site:* Lakeshore Marsh (R028AY025UT)  
*Hydric soil rating:* Yes

**Minor Components**

**Pogal**

*Percent of map unit:* 5 percent  
*Ecological site:* Upland Alkali Loam (Wyoming Big Sagebrush) (R028AY332UT)

**Water**

*Percent of map unit:* 5 percent

**Saltair**

*Percent of map unit:* 5 percent  
*Landform:* Lake plains  
*Landform position (three-dimensional):* Talf, dip  
*Down-slope shape:* Linear  
*Across-slope shape:* Linear  
*Ecological site:* Desert Salty Silt (Iodinebush) (R028AY132UT)  
*Hydric soil rating:* Yes

**Fa—Ford loam, 0 to 1 percent slopes**

**Map Unit Setting**

*National map unit symbol:* j532  
*Elevation:* 4,200 to 4,300 feet  
*Mean annual precipitation:* 14 to 18 inches



## Custom Soil Resource Report

*Mean annual air temperature:* 48 to 52 degrees F

*Frost-free period:* 160 to 180 days

*Farmland classification:* Not prime farmland

### Map Unit Composition

*Ford and similar soils:* 90 percent

*Minor components:* 10 percent

*Estimates are based on observations, descriptions, and transects of the mapunit.*

### Description of Ford

#### Setting

*Landform:* Lake terraces

*Landform position (three-dimensional):* Tread

*Down-slope shape:* Linear

*Across-slope shape:* Linear

*Parent material:* Lacustrine deposits

#### Typical profile

*A1 - 0 to 9 inches:* loam

*C1ca - 9 to 16 inches:* loam

*C2ca - 16 to 34 inches:* fine sandy loam

*C3cam - 34 to 44 inches:* indurated

*C4ca - 44 to 52 inches:* fine sandy loam

*C5cam - 52 to 60 inches:* indurated

#### Properties and qualities

*Slope:* 0 to 1 percent

*Depth to restrictive feature:* 20 to 40 inches to petrocalcic

*Natural drainage class:* Somewhat poorly drained

*Runoff class:* Medium

*Capacity of the most limiting layer to transmit water (Ksat):* Very low to moderately high (0.00 to 0.20 in/hr)

*Depth to water table:* About 30 to 48 inches

*Frequency of flooding:* Occasional

*Frequency of ponding:* None

*Calcium carbonate, maximum in profile:* 25 percent

*Salinity, maximum in profile:* Moderately saline to strongly saline (8.0 to 16.0 mmhos/cm)

*Sodium adsorption ratio, maximum in profile:* 30.0

*Available water storage in profile:* Low (about 3.4 inches)

#### Interpretive groups

*Land capability classification (irrigated):* 4w

*Land capability classification (nonirrigated):* 7w

*Hydrologic Soil Group:* C

*Ecological site:* Alkali Bottom (Alkali Sacaton) (R028AY001UT)

*Hydric soil rating:* No

### Minor Components

#### Poorly drained soils

*Percent of map unit:* 5 percent

*Landform:* Lake terraces

*Landform position (three-dimensional):* Tread

*Down-slope shape:* Linear

*Across-slope shape:* Linear

*Hydric soil rating:* Yes

**Hummocky soils**

*Percent of map unit:* 5 percent

*Hydric soil rating:* No

**Fb—Ford loam, shallow water table, 0 to 1 percent slopes**

**Map Unit Setting**

*National map unit symbol:* j533

*Elevation:* 4,200 to 4,300 feet

*Mean annual precipitation:* 14 to 18 inches

*Mean annual air temperature:* 48 to 52 degrees F

*Frost-free period:* 160 to 180 days

*Farmland classification:* Not prime farmland

**Map Unit Composition**

*Ford, shallow water table, and similar soils:* 100 percent

*Estimates are based on observations, descriptions, and transects of the mapunit.*

**Description of Ford, Shallow Water Table**

**Setting**

*Landform:* Lake terraces

*Landform position (three-dimensional):* Tread

*Down-slope shape:* Linear

*Across-slope shape:* Linear

*Parent material:* Lacustrine deposits

**Typical profile**

*A1 - 0 to 9 inches:* loam

*C1ca - 9 to 16 inches:* loam

*C2ca - 16 to 34 inches:* fine sandy loam

*C3cam - 34 to 44 inches:* indurated

*C4ca - 44 to 52 inches:* fine sandy loam

*C5cam - 52 to 60 inches:* indurated

**Properties and qualities**

*Slope:* 0 to 1 percent

*Depth to restrictive feature:* 20 to 40 inches to petrocalcic

*Natural drainage class:* Poorly drained

*Runoff class:* Negligible

*Capacity of the most limiting layer to transmit water (Ksat):* Very low to moderately high (0.00 to 0.20 in/hr)

*Depth to water table:* About 0 to 6 inches

*Frequency of flooding:* Occasional

*Frequency of ponding:* Rare

*Calcium carbonate, maximum in profile:* 25 percent

*Salinity, maximum in profile:* Moderately saline to strongly saline (8.0 to 16.0 mmhos/cm)

*Sodium adsorption ratio, maximum in profile:* 30.0

*Available water storage in profile:* Low (about 3.4 inches)

**Interpretive groups**

*Land capability classification (irrigated):* 4w

*Land capability classification (nonirrigated):* 7w

*Hydrologic Soil Group:* C/D

*Ecological site:* Wet Saline Meadow (Saltgrass) (R028AY024UT)

*Hydric soil rating:* Yes

**HaA—Harrisville silt loam, 0 to 1 percent slopes**

**Map Unit Setting**

*National map unit symbol:* j53h

*Elevation:* 4,250 to 4,500 feet

*Mean annual precipitation:* 14 to 18 inches

*Mean annual air temperature:* 48 to 52 degrees F

*Frost-free period:* 160 to 180 days

*Farmland classification:* Farmland of statewide importance

**Map Unit Composition**

*Harrisville and similar soils:* 100 percent

*Estimates are based on observations, descriptions, and transects of the mapunit.*

**Description of Harrisville**

**Setting**

*Landform:* Lake terraces

*Landform position (three-dimensional):* Tread

*Down-slope shape:* Linear

*Across-slope shape:* Linear

*Parent material:* Alluvium and/or lacustrine deposits

**Typical profile**

*Ap - 0 to 8 inches:* silt loam

*B21t - 8 to 14 inches:* silty clay loam

*B22tca - 14 to 22 inches:* silty clay loam

*B3ca - 22 to 33 inches:* silty clay loam

*C1 - 33 to 45 inches:* silty clay loam

*C2 - 45 to 60 inches:* silty clay loam

**Properties and qualities**

*Slope:* 0 to 1 percent

*Depth to restrictive feature:* More than 80 inches

*Natural drainage class:* Somewhat poorly drained

*Runoff class:* Medium

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately low to moderately high (0.06 to 0.20 in/hr)

*Depth to water table:* About 30 to 48 inches

*Frequency of flooding:* None

*Frequency of ponding:* None

*Calcium carbonate, maximum in profile:* 30 percent

## Custom Soil Resource Report

*Salinity, maximum in profile:* Very slightly saline to slightly saline (2.0 to 4.0 mmhos/cm)

*Sodium adsorption ratio, maximum in profile:* 50.0

*Available water storage in profile:* High (about 10.2 inches)

### Interpretive groups

*Land capability classification (irrigated):* 4w

*Land capability classification (nonirrigated):* 7w

*Hydrologic Soil Group:* D

*Ecological site:* Semiwet Fresh Meadow (R028AY012UT)

*Hydric soil rating:* No

## HLA—Harrisville-Leland complex, 0 to 1 percent slopes

### Map Unit Setting

*National map unit symbol:* j53c

*Elevation:* 4,250 to 4,500 feet

*Mean annual precipitation:* 14 to 18 inches

*Mean annual air temperature:* 48 to 52 degrees F

*Frost-free period:* 160 to 180 days

*Farmland classification:* Not prime farmland

### Map Unit Composition

*Harrisville and similar soils:* 60 percent

*Leland and similar soils:* 40 percent

*Estimates are based on observations, descriptions, and transects of the mapunit.*

### Description of Harrisville

#### Setting

*Landform:* Lake terraces

*Landform position (three-dimensional):* Tread

*Down-slope shape:* Linear

*Across-slope shape:* Linear

*Parent material:* Alluvium and/or lacustrine deposits

#### Typical profile

*Ap - 0 to 8 inches:* silt loam

*B21t - 8 to 14 inches:* silty clay loam

*B22tca - 14 to 22 inches:* silty clay loam

*B3ca - 22 to 33 inches:* silty clay loam

*C1 - 33 to 45 inches:* silty clay loam

*C2 - 45 to 60 inches:* silty clay loam

#### Properties and qualities

*Slope:* 0 to 1 percent

*Depth to restrictive feature:* More than 80 inches

*Natural drainage class:* Somewhat poorly drained

*Runoff class:* Medium

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately low to moderately high (0.06 to 0.20 in/hr)

*Depth to water table:* About 30 to 48 inches



## Custom Soil Resource Report

*Frequency of flooding:* None  
*Frequency of ponding:* None  
*Calcium carbonate, maximum in profile:* 30 percent  
*Salinity, maximum in profile:* Very slightly saline to slightly saline (2.0 to 4.0 mmhos/cm)  
*Sodium adsorption ratio, maximum in profile:* 50.0  
*Available water storage in profile:* High (about 10.2 inches)

### Interpretive groups

*Land capability classification (irrigated):* 4w  
*Land capability classification (nonirrigated):* 7w  
*Hydrologic Soil Group:* D  
*Ecological site:* Semiwet Fresh Meadow (R028AY012UT)  
*Hydric soil rating:* No

## Description of Leland

### Setting

*Landform:* Lake terraces  
*Landform position (three-dimensional):* Tread  
*Down-slope shape:* Linear  
*Across-slope shape:* Linear  
*Parent material:* Lacustrine deposits

### Typical profile

*A2 - 0 to 8 inches:* silt loam  
*B2tca - 8 to 14 inches:* clay loam  
*Bca - 14 to 19 inches:* fine sandy loam  
*C1 - 19 to 31 inches:* loamy very fine sand  
*C2 - 31 to 38 inches:* silt loam  
*C3 - 38 to 60 inches:* very fine sandy loam

### Properties and qualities

*Slope:* 0 to 1 percent  
*Depth to restrictive feature:* More than 80 inches  
*Natural drainage class:* Somewhat poorly drained  
*Runoff class:* Medium  
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately low to moderately high (0.06 to 0.20 in/hr)  
*Depth to water table:* About 30 to 48 inches  
*Frequency of flooding:* Rare  
*Frequency of ponding:* None  
*Calcium carbonate, maximum in profile:* 25 percent  
*Salinity, maximum in profile:* Strongly saline (16.0 to 32.0 mmhos/cm)  
*Sodium adsorption ratio, maximum in profile:* 80.0  
*Available water storage in profile:* Moderate (about 6.3 inches)

### Interpretive groups

*Land capability classification (irrigated):* None specified  
*Land capability classification (nonirrigated):* 7w  
*Hydrologic Soil Group:* D  
*Ecological site:* Alkali Bottom (Alkali Sacaton) (R028AY001UT)  
*Hydric soil rating:* No

## **1aA—Ironton silt loam, 0 to 1 percent slopes**

### **Map Unit Setting**

*National map unit symbol:* j53p

*Elevation:* 4,200 to 4,750 feet

*Mean annual precipitation:* 14 to 18 inches

*Mean annual air temperature:* 48 to 52 degrees F

*Frost-free period:* 160 to 180 days

*Farmland classification:* Prime farmland if irrigated and drained

### **Map Unit Composition**

*Ironton and similar soils:* 90 percent

*Minor components:* 10 percent

*Estimates are based on observations, descriptions, and transects of the mapunit.*

### **Description of Ironton**

#### **Setting**

*Landform:* Flood plains, lake terraces

*Landform position (three-dimensional):* Tread, tal, dip

*Down-slope shape:* Linear

*Across-slope shape:* Concave, linear

*Parent material:* Alluvium and/or lacustrine deposits

#### **Typical profile**

*A11 - 0 to 6 inches:* silt loam

*A12 - 6 to 16 inches:* silt loam

*A13ca - 16 to 21 inches:* loam

*C1ca - 21 to 36 inches:* loam

*C2ca - 36 to 48 inches:* silt loam

*C3 - 48 to 60 inches:* silt loam

#### **Properties and qualities**

*Slope:* 0 to 1 percent

*Depth to restrictive feature:* More than 80 inches

*Natural drainage class:* Somewhat poorly drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high to high (0.60 to 2.00 in/hr)

*Depth to water table:* About 24 to 36 inches

*Frequency of flooding:* Rare

*Frequency of ponding:* None

*Calcium carbonate, maximum in profile:* 40 percent

*Salinity, maximum in profile:* Nonsaline to slightly saline (0.0 to 4.0 mmhos/cm)

*Sodium adsorption ratio, maximum in profile:* 13.0

*Available water storage in profile:* High (about 10.0 inches)

#### **Interpretive groups**

*Land capability classification (irrigated):* 2w

*Land capability classification (nonirrigated):* 4w

*Hydrologic Soil Group:* C

## Custom Soil Resource Report

*Ecological site:* Semiwet Fresh Meadow (R028AY012UT)

*Hydric soil rating:* No

### Minor Components

#### Poorly drained soils

*Percent of map unit:* 10 percent

*Landform:* Lake terraces

*Landform position (three-dimensional):* Tread

*Down-slope shape:* Linear

*Across-slope shape:* Linear

*Hydric soil rating:* Yes

### 1aB—Ironton silt loam, 1 to 3 percent slopes

#### Map Unit Setting

*National map unit symbol:* j53q

*Elevation:* 4,200 to 4,750 feet

*Mean annual precipitation:* 14 to 18 inches

*Mean annual air temperature:* 48 to 52 degrees F

*Frost-free period:* 160 to 180 days

*Farmland classification:* Prime farmland if irrigated and drained

#### Map Unit Composition

*Ironton and similar soils:* 90 percent

*Minor components:* 10 percent

*Estimates are based on observations, descriptions, and transects of the mapunit.*

#### Description of Ironton

##### Setting

*Landform:* Lake terraces, flood plains

*Landform position (three-dimensional):* Tread, tal, dip

*Down-slope shape:* Linear

*Across-slope shape:* Linear, concave

*Parent material:* Alluvium and/or lacustrine deposits

##### Typical profile

*A11 - 0 to 6 inches:* silt loam

*A12 - 6 to 16 inches:* silt loam

*A13ca - 16 to 21 inches:* loam

*C1ca - 21 to 36 inches:* loam

*C2ca - 36 to 48 inches:* silt loam

*C3 - 48 to 60 inches:* silt loam

##### Properties and qualities

*Slope:* 1 to 3 percent

*Depth to restrictive feature:* More than 80 inches

*Natural drainage class:* Somewhat poorly drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high to high (0.60 to 2.00 in/hr)

## Custom Soil Resource Report

*Depth to water table:* About 24 to 36 inches  
*Frequency of flooding:* Rare  
*Frequency of ponding:* None  
*Calcium carbonate, maximum in profile:* 40 percent  
*Salinity, maximum in profile:* Nonsaline to slightly saline (0.0 to 4.0 mmhos/cm)  
*Sodium adsorption ratio, maximum in profile:* 13.0  
*Available water storage in profile:* High (about 10.0 inches)

### Interpretive groups

*Land capability classification (irrigated):* 2w  
*Land capability classification (nonirrigated):* 4w  
*Hydrologic Soil Group:* C  
*Ecological site:* Semiwet Fresh Meadow (R028AY012UT)  
*Hydric soil rating:* No

### Minor Components

#### Poorly drained soils, hydric, not correlated

*Percent of map unit:* 10 percent  
*Landform:* Lake terraces  
*Landform position (three-dimensional):* Tread  
*Down-slope shape:* Linear  
*Across-slope shape:* Linear  
*Hydric soil rating:* Yes

## IcA—Ironton silt loam, saline, sodic, 0 to 1 percent slopes

### Map Unit Setting

*National map unit symbol:* j53s  
*Elevation:* 4,200 to 4,750 feet  
*Mean annual precipitation:* 14 to 18 inches  
*Mean annual air temperature:* 48 to 52 degrees F  
*Frost-free period:* 160 to 180 days  
*Farmland classification:* Not prime farmland

### Map Unit Composition

*Ironton and similar soils:* 90 percent  
*Minor components:* 10 percent  
*Estimates are based on observations, descriptions, and transects of the mapunit.*

### Description of Ironton

#### Setting

*Landform:* Depressions on lake terraces, flood plains  
*Landform position (three-dimensional):* Tread, dip, talf  
*Down-slope shape:* Linear, concave  
*Across-slope shape:* Linear, concave  
*Parent material:* Alluvium and/or lacustrine deposits

#### Typical profile

*A11 - 0 to 6 inches:* silt loam



## Custom Soil Resource Report

*A12 - 6 to 16 inches:* silt loam  
*A13ca - 16 to 21 inches:* loam  
*C1ca - 21 to 36 inches:* loam  
*C2ca - 36 to 48 inches:* silt loam  
*C3 - 48 to 60 inches:* silt loam

### Properties and qualities

*Slope:* 0 to 1 percent  
*Depth to restrictive feature:* More than 80 inches  
*Natural drainage class:* Somewhat poorly drained  
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high to high (0.60 to 2.00 in/hr)  
*Depth to water table:* About 24 to 36 inches  
*Frequency of flooding:* Rare  
*Frequency of ponding:* None  
*Calcium carbonate, maximum in profile:* 40 percent  
*Salinity, maximum in profile:* Moderately saline to strongly saline (8.0 to 16.0 mmhos/cm)  
*Sodium adsorption ratio, maximum in profile:* 30.0  
*Available water storage in profile:* Moderate (about 7.6 inches)

### Interpretive groups

*Land capability classification (irrigated):* 3w  
*Land capability classification (nonirrigated):* 4w  
*Hydrologic Soil Group:* C  
*Ecological site:* Alkali Bottom (Alkali Sacaton) (R028AY001UT)  
*Hydric soil rating:* No

### Minor Components

#### Poorly drained soils, hydric, not correlated

*Percent of map unit:* 10 percent  
*Landform:* Lake terraces  
*Landform position (three-dimensional):* Tread  
*Down-slope shape:* Linear  
*Across-slope shape:* Linear  
*Hydric soil rating:* Yes

## IDA—Ironton-Draper complex, 0 to 3 percent slopes

### Map Unit Setting

*National map unit symbol:* j53n  
*Elevation:* 4,200 to 5,000 feet  
*Mean annual precipitation:* 14 to 18 inches  
*Mean annual air temperature:* 48 to 52 degrees F  
*Frost-free period:* 130 to 180 days  
*Farmland classification:* Not prime farmland

### Map Unit Composition

*Ironton and similar soils:* 60 percent

## Custom Soil Resource Report

*Draper and similar soils: 40 percent*

*Estimates are based on observations, descriptions, and transects of the mapunit.*

### Description of Ironton

#### Setting

*Landform:* Flood plains

*Landform position (three-dimensional):* Talf, dip

*Down-slope shape:* Linear

*Across-slope shape:* Concave

*Parent material:* Alluvium and/or lacustrine deposits

#### Typical profile

*A11 - 0 to 6 inches:* silt loam

*A12 - 6 to 16 inches:* silt loam

*A13ca - 16 to 21 inches:* loam

*C1ca - 21 to 36 inches:* loam

*C2ca - 36 to 48 inches:* silt loam

*C3 - 48 to 60 inches:* silt loam

#### Properties and qualities

*Slope:* 0 to 3 percent

*Depth to restrictive feature:* More than 80 inches

*Natural drainage class:* Somewhat poorly drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high to high (0.60 to 2.00 in/hr)

*Depth to water table:* About 24 to 36 inches

*Frequency of flooding:* Rare

*Frequency of ponding:* None

*Calcium carbonate, maximum in profile:* 40 percent

*Salinity, maximum in profile:* Nonsaline to slightly saline (0.0 to 4.0 mmhos/cm)

*Sodium adsorption ratio, maximum in profile:* 13.0

*Available water storage in profile:* High (about 10.0 inches)

#### Interpretive groups

*Land capability classification (irrigated):* 2w

*Land capability classification (nonirrigated):* 4w

*Hydrologic Soil Group:* C

*Ecological site:* Semiwet Fresh Meadow (R028AY012UT)

*Hydric soil rating:* No

### Description of Draper

#### Setting

*Landform:* Flood plains

*Landform position (three-dimensional):* Talf, dip

*Down-slope shape:* Linear

*Across-slope shape:* Concave

*Parent material:* Alluvium

#### Typical profile

*Ap - 0 to 8 inches:* loam

*A12 - 8 to 21 inches:* loam

*A13 - 21 to 30 inches:* loam

*C1 - 30 to 53 inches:* loam

*C2 - 53 to 60 inches:* loam

**Properties and qualities**

*Slope:* 0 to 3 percent  
*Depth to restrictive feature:* More than 80 inches  
*Natural drainage class:* Somewhat poorly drained  
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high to high (0.60 to 2.00 in/hr)  
*Depth to water table:* About 24 to 36 inches  
*Frequency of flooding:* Rare  
*Frequency of ponding:* None  
*Calcium carbonate, maximum in profile:* 5 percent  
*Salinity, maximum in profile:* Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)  
*Available water storage in profile:* High (about 9.6 inches)

**Interpretive groups**

*Land capability classification (irrigated):* 2w  
*Land capability classification (nonirrigated):* 4w  
*Hydrologic Soil Group:* C  
*Ecological site:* Semiwet Fresh Meadow (R028AY012UT)  
*Hydric soil rating:* No

**KaA—Kidman fine sandy loam, 0 to 1 percent slopes**

**Map Unit Setting**

*National map unit symbol:* j53y  
*Elevation:* 4,200 to 5,100 feet  
*Mean annual precipitation:* 14 to 18 inches  
*Mean annual air temperature:* 48 to 52 degrees F  
*Frost-free period:* 160 to 180 days  
*Farmland classification:* Prime farmland if irrigated

**Map Unit Composition**

*Kidman and similar soils:* 100 percent  
*Estimates are based on observations, descriptions, and transects of the mapunit.*

**Description of Kidman**

**Setting**

*Landform:* Lake plains  
*Landform position (three-dimensional):* Talf, rise  
*Down-slope shape:* Linear  
*Across-slope shape:* Linear  
*Parent material:* Lacustrine deposits

**Typical profile**

*H1 - 0 to 11 inches:* fine sandy loam  
*H2 - 11 to 17 inches:* fine sandy loam  
*H3 - 17 to 27 inches:* fine sandy loam  
*H4 - 27 to 37 inches:* fine sandy loam  
*H5 - 37 to 49 inches:* very fine sandy loam

## Custom Soil Resource Report

*H6 - 49 to 60 inches: very fine sandy loam*

### Properties and qualities

*Slope: 0 to 1 percent*

*Depth to restrictive feature: More than 80 inches*

*Natural drainage class: Well drained*

*Runoff class: Very low*

*Capacity of the most limiting layer to transmit water (Ksat): High (2.00 to 6.00 in/hr)*

*Depth to water table: More than 80 inches*

*Frequency of flooding: None*

*Frequency of ponding: None*

*Calcium carbonate, maximum in profile: 30 percent*

*Salinity, maximum in profile: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)*

*Available water storage in profile: Moderate (about 7.5 inches)*

### Interpretive groups

*Land capability classification (irrigated): 1*

*Land capability classification (nonirrigated): 3c*

*Hydrologic Soil Group: A*

*Ecological site: Upland Loam (Bonneville Big Sagebrush) North (R028AY310UT)*

*Other vegetative classification: Upland Loam (Mountain Big Sagebrush) (028AY310UT)*

*Hydric soil rating: No*

## KaB—Kidman fine sandy loam, 1 to 3 percent slopes

### Map Unit Setting

*National map unit symbol: j53z*

*Elevation: 4,200 to 5,100 feet*

*Mean annual precipitation: 14 to 18 inches*

*Mean annual air temperature: 48 to 52 degrees F*

*Frost-free period: 160 to 180 days*

*Farmland classification: Prime farmland if irrigated*

### Map Unit Composition

*Kidman and similar soils: 100 percent*

*Estimates are based on observations, descriptions, and transects of the mapunit.*

### Description of Kidman

#### Setting

*Landform: Lake terraces*

*Landform position (three-dimensional): Tread*

*Down-slope shape: Linear*

*Across-slope shape: Linear*

*Parent material: Lacustrine deposits*

#### Typical profile

*H1 - 0 to 11 inches: fine sandy loam*

*H2 - 11 to 17 inches: fine sandy loam*



## Custom Soil Resource Report

*H3 - 17 to 27 inches:* fine sandy loam  
*H4 - 27 to 37 inches:* fine sandy loam  
*H5 - 37 to 49 inches:* very fine sandy loam  
*H6 - 49 to 60 inches:* very fine sandy loam

### Properties and qualities

*Slope:* 1 to 3 percent  
*Depth to restrictive feature:* More than 80 inches  
*Natural drainage class:* Well drained  
*Runoff class:* Very low  
*Capacity of the most limiting layer to transmit water (Ksat):* High (2.00 to 6.00 in/hr)  
*Depth to water table:* More than 80 inches  
*Frequency of flooding:* None  
*Frequency of ponding:* None  
*Calcium carbonate, maximum in profile:* 30 percent  
*Salinity, maximum in profile:* Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)  
*Available water storage in profile:* Moderate (about 7.5 inches)

### Interpretive groups

*Land capability classification (irrigated):* 2e  
*Land capability classification (nonirrigated):* 3e  
*Hydrologic Soil Group:* A  
*Ecological site:* Upland Loam (Bonneville Big Sagebrush) North (R028AY310UT)  
*Other vegetative classification:* Upland Loam (Mountain Big Sagebrush) (028AY310UT)  
*Hydric soil rating:* No

## KaC—Kidman fine sandy loam, 3 to 6 percent slopes

### Map Unit Setting

*National map unit symbol:* j540  
*Elevation:* 4,200 to 5,100 feet  
*Mean annual precipitation:* 14 to 18 inches  
*Mean annual air temperature:* 48 to 52 degrees F  
*Frost-free period:* 160 to 180 days  
*Farmland classification:* Prime farmland if irrigated

### Map Unit Composition

*Kidman and similar soils:* 95 percent  
*Minor components:* 5 percent  
*Estimates are based on observations, descriptions, and transects of the mapunit.*

### Description of Kidman

#### Setting

*Landform:* Lake terraces  
*Landform position (three-dimensional):* Tread  
*Down-slope shape:* Linear  
*Across-slope shape:* Linear  
*Parent material:* Lacustrine deposits

**Typical profile**

*H1 - 0 to 11 inches:* fine sandy loam  
*H2 - 11 to 17 inches:* fine sandy loam  
*H3 - 17 to 27 inches:* fine sandy loam  
*H4 - 27 to 37 inches:* fine sandy loam  
*H5 - 37 to 49 inches:* very fine sandy loam  
*H6 - 49 to 60 inches:* very fine sandy loam

**Properties and qualities**

*Slope:* 3 to 6 percent  
*Depth to restrictive feature:* More than 80 inches  
*Natural drainage class:* Well drained  
*Runoff class:* Low  
*Capacity of the most limiting layer to transmit water (Ksat):* High (2.00 to 6.00 in/hr)  
*Depth to water table:* More than 80 inches  
*Frequency of flooding:* None  
*Frequency of ponding:* None  
*Calcium carbonate, maximum in profile:* 30 percent  
*Salinity, maximum in profile:* Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)  
*Available water storage in profile:* Moderate (about 7.5 inches)

**Interpretive groups**

*Land capability classification (irrigated):* 3e  
*Land capability classification (nonirrigated):* 3e  
*Hydrologic Soil Group:* A  
*Ecological site:* Upland Loam (Bonneville Big Sagebrush) North (R028AY310UT)  
*Other vegetative classification:* Upland Loam (Mountain Big Sagebrush) (028AY310UT)  
*Hydric soil rating:* No

**Minor Components**

**Somewhat poorly drained soils**

*Percent of map unit:* 5 percent  
*Hydric soil rating:* No

**KaE2—Kidman fine sandy loam, 10 to 20 percent slopes, eroded**

**Map Unit Setting**

*National map unit symbol:* j542  
*Elevation:* 4,200 to 4,300 feet  
*Mean annual precipitation:* 14 to 18 inches  
*Mean annual air temperature:* 48 to 52 degrees F  
*Frost-free period:* 160 to 180 days  
*Farmland classification:* Farmland of statewide importance

**Map Unit Composition**

*Kidman and similar soils:* 100 percent

## Custom Soil Resource Report

*Estimates are based on observations, descriptions, and transects of the mapunit.*

### Description of Kidman

#### Setting

*Landform:* Lake terraces  
*Landform position (three-dimensional):* Riser  
*Down-slope shape:* Linear  
*Across-slope shape:* Linear  
*Parent material:* Lacustrine deposits

#### Typical profile

*H1 - 0 to 11 inches:* fine sandy loam  
*H2 - 11 to 17 inches:* fine sandy loam  
*H3 - 17 to 27 inches:* fine sandy loam  
*H4 - 27 to 37 inches:* fine sandy loam  
*H5 - 37 to 49 inches:* very fine sandy loam  
*H6 - 49 to 60 inches:* very fine sandy loam

#### Properties and qualities

*Slope:* 10 to 20 percent  
*Depth to restrictive feature:* More than 80 inches  
*Natural drainage class:* Well drained  
*Runoff class:* Low  
*Capacity of the most limiting layer to transmit water (Ksat):* High (2.00 to 6.00 in/hr)  
*Depth to water table:* More than 80 inches  
*Frequency of flooding:* None  
*Frequency of ponding:* None  
*Calcium carbonate, maximum in profile:* 30 percent  
*Salinity, maximum in profile:* Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)  
*Available water storage in profile:* Moderate (about 7.5 inches)

#### Interpretive groups

*Land capability classification (irrigated):* 4e  
*Land capability classification (nonirrigated):* 4e  
*Hydrologic Soil Group:* A  
*Ecological site:* Upland Loam (Bonneville Big Sagebrush) North (R028AY310UT)  
*Other vegetative classification:* Upland Loam (Mountain Big Sagebrush) (028AY310UT)  
*Hydric soil rating:* No

### KgC—Kilburn gravelly sandy loam, 3 to 6 percent slopes

#### Map Unit Setting

*National map unit symbol:* j548  
*Elevation:* 4,400 to 5,300 feet  
*Mean annual precipitation:* 14 to 18 inches  
*Mean annual air temperature:* 48 to 52 degrees F  
*Frost-free period:* 160 to 180 days  
*Farmland classification:* Prime farmland if irrigated

**Map Unit Composition**

*Kilburn and similar soils: 100 percent*

*Estimates are based on observations, descriptions, and transects of the mapunit.*

**Description of Kilburn**

**Setting**

*Landform: Alluvial fans*

*Down-slope shape: Concave*

*Across-slope shape: Convex*

*Parent material: Lacustrine deposits*

**Typical profile**

*A11 - 0 to 5 inches: gravelly sandy loam*

*A12 - 5 to 11 inches: gravelly sandy loam*

*B2 - 11 to 24 inches: very cobbly sandy loam*

*C - 24 to 60 inches: very gravelly loamy coarse sand*

**Properties and qualities**

*Slope: 3 to 6 percent*

*Depth to restrictive feature: More than 80 inches*

*Natural drainage class: Well drained*

*Capacity of the most limiting layer to transmit water (Ksat): High (2.00 to 6.00 in/hr)*

*Depth to water table: More than 80 inches*

*Frequency of flooding: None*

*Frequency of ponding: None*

*Available water storage in profile: Low (about 3.1 inches)*

**Interpretive groups**

*Land capability classification (irrigated): 3s*

*Land capability classification (nonirrigated): 6s*

*Hydrologic Soil Group: A*

*Ecological site: Upland Gravelly Loam (Bonneville Big Sagebrush)  
(R028AY306UT)*

*Hydric soil rating: No*

**Lb—Lakeshore fine sandy loam, 0 to 1 percent slopes**

**Map Unit Setting**

*National map unit symbol: j54q*

*Elevation: 4,200 to 4,400 feet*

*Mean annual precipitation: 14 to 18 inches*

*Mean annual air temperature: 48 to 52 degrees F*

*Frost-free period: 160 to 180 days*

*Farmland classification: Not prime farmland*

**Map Unit Composition**

*Lakeshore and similar soils: 100 percent*

*Estimates are based on observations, descriptions, and transects of the mapunit.*



## Description of Lakeshore

### Setting

*Landform:* Lake terraces  
*Landform position (three-dimensional):* Tread  
*Down-slope shape:* Linear  
*Across-slope shape:* Linear  
*Parent material:* Lacustrine deposits

### Typical profile

*H1 - 0 to 4 inches:* fine sandy loam  
*H2 - 4 to 8 inches:* silt loam  
*H3 - 8 to 13 inches:* very fine sandy loam  
*H4 - 13 to 19 inches:* loam  
*H5 - 19 to 51 inches:* silt loam  
*H6 - 51 to 64 inches:* silt loam

### Properties and qualities

*Slope:* 0 to 1 percent  
*Depth to restrictive feature:* More than 80 inches  
*Natural drainage class:* Poorly drained  
*Runoff class:* Negligible  
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately low to moderately high (0.06 to 0.20 in/hr)  
*Depth to water table:* About 0 to 20 inches  
*Frequency of flooding:* None  
*Frequency of ponding:* Frequent  
*Calcium carbonate, maximum in profile:* 25 percent  
*Salinity, maximum in profile:* Strongly saline (32.0 to 90.0 mmhos/cm)  
*Sodium adsorption ratio, maximum in profile:* 90.0  
*Available water storage in profile:* Low (about 4.1 inches)

### Interpretive groups

*Land capability classification (irrigated):* None specified  
*Land capability classification (nonirrigated):* 7w  
*Hydrologic Soil Group:* C/D  
*Ecological site:* Wet Saline Meadow (Saltgrass) (R028AY024UT)  
*Hydric soil rating:* Yes

## LcB—Layton loamy fine sand, 0 to 3 percent slopes

### Map Unit Setting

*National map unit symbol:* j54r  
*Elevation:* 4,300 to 5,100 feet  
*Mean annual precipitation:* 14 to 18 inches  
*Mean annual air temperature:* 48 to 52 degrees F  
*Frost-free period:* 160 to 180 days  
*Farmland classification:* Prime farmland if irrigated

### Map Unit Composition

*Layton and similar soils:* 100 percent

*Estimates are based on observations, descriptions, and transects of the mapunit.*

## **Description of Layton**

### **Setting**

*Landform:* Lake terraces  
*Landform position (three-dimensional):* Tread  
*Down-slope shape:* Linear  
*Across-slope shape:* Linear  
*Parent material:* Lacustrine deposits

### **Typical profile**

*Ap - 0 to 7 inches:* loamy fine sand  
*A12 - 7 to 15 inches:* loamy fine sand  
*C1 - 15 to 23 inches:* loamy fine sand  
*C2 - 23 to 29 inches:* loamy fine sand  
*C3ca - 29 to 66 inches:* loamy fine sand

### **Properties and qualities**

*Slope:* 0 to 3 percent  
*Depth to restrictive feature:* More than 80 inches  
*Natural drainage class:* Well drained  
*Capacity of the most limiting layer to transmit water (Ksat):* High to very high (6.00 to 20.00 in/hr)  
*Depth to water table:* More than 80 inches  
*Frequency of flooding:* None  
*Frequency of ponding:* None  
*Calcium carbonate, maximum in profile:* 15 percent  
*Available water storage in profile:* Low (about 5.4 inches)

### **Interpretive groups**

*Land capability classification (irrigated):* 3s  
*Land capability classification (nonirrigated):* 4s  
*Hydrologic Soil Group:* A  
*Ecological site:* Upland Sand (Black Greasewood, Indian Ricegrass)  
(R028AY330UT)  
*Hydric soil rating:* No

## **Lt—Logan silty clay loam, 0 to 3 percent slopes**

### **Map Unit Setting**

*National map unit symbol:* j54x  
*Elevation:* 4,200 to 4,650 feet  
*Mean annual precipitation:* 14 to 18 inches  
*Mean annual air temperature:* 48 to 52 degrees F  
*Frost-free period:* 160 to 180 days  
*Farmland classification:* Farmland of statewide importance

### **Map Unit Composition**

*Logan and similar soils:* 95 percent  
*Minor components:* 5 percent  
*Estimates are based on observations, descriptions, and transects of the mapunit.*

## Description of Logan

### Setting

*Landform:* Lake terraces  
*Landform position (three-dimensional):* Tread  
*Down-slope shape:* Linear  
*Across-slope shape:* Linear  
*Parent material:* Alluvium and/or lacustrine deposits

### Typical profile

*Ap - 0 to 5 inches:* silty clay loam  
*A12 - 5 to 12 inches:* silty clay loam  
*C1cag - 12 to 29 inches:* silty clay loam  
*C2cag - 29 to 46 inches:* silt loam  
*C3g - 46 to 60 inches:* stratified fine sand to silty clay

### Properties and qualities

*Slope:* 0 to 3 percent  
*Depth to restrictive feature:* More than 80 inches  
*Natural drainage class:* Poorly drained  
*Runoff class:* Medium  
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately low to moderately high (0.06 to 0.20 in/hr)  
*Depth to water table:* About 12 to 30 inches  
*Frequency of flooding:* Rare  
*Frequency of ponding:* None  
*Calcium carbonate, maximum in profile:* 60 percent  
*Salinity, maximum in profile:* Nonsaline to slightly saline (0.0 to 4.0 mmhos/cm)  
*Sodium adsorption ratio, maximum in profile:* 13.0  
*Available water storage in profile:* High (about 9.5 inches)

### Interpretive groups

*Land capability classification (irrigated):* 3w  
*Land capability classification (nonirrigated):* 5w  
*Hydrologic Soil Group:* C/D  
*Ecological site:* Wet Fresh Meadow (R028AY020UT)  
*Hydric soil rating:* Yes

## Minor Components

### Peat surface soils

*Percent of map unit:* 5 percent  
*Landform:* Lake terraces  
*Landform position (three-dimensional):* Tread  
*Down-slope shape:* Linear  
*Across-slope shape:* Linear  
*Hydric soil rating:* Yes

## **Lw—Logan silty clay loam, shallow water table, 0 to 3 percent slopes**

### **Map Unit Setting**

*National map unit symbol:* j54z  
*Elevation:* 4,200 to 4,650 feet  
*Mean annual precipitation:* 14 to 18 inches  
*Mean annual air temperature:* 48 to 52 degrees F  
*Frost-free period:* 160 to 180 days  
*Farmland classification:* Not prime farmland

### **Map Unit Composition**

*Logan and similar soils:* 95 percent  
*Minor components:* 5 percent  
*Estimates are based on observations, descriptions, and transects of the mapunit.*

### **Description of Logan**

#### **Setting**

*Landform:* Lake terraces  
*Landform position (three-dimensional):* Tread  
*Down-slope shape:* Linear  
*Across-slope shape:* Linear  
*Parent material:* Alluvium and/or lacustrine deposits

#### **Typical profile**

*Ap - 0 to 5 inches:* silty clay loam  
*A12 - 5 to 12 inches:* silty clay loam  
*C1cag - 12 to 29 inches:* silty clay loam  
*C2cag - 29 to 46 inches:* silt loam  
*C3g - 46 to 60 inches:* stratified fine sand to silty clay

#### **Properties and qualities**

*Slope:* 0 to 3 percent  
*Depth to restrictive feature:* More than 80 inches  
*Natural drainage class:* Very poorly drained  
*Runoff class:* Very high  
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately low to moderately high (0.06 to 0.20 in/hr)  
*Depth to water table:* About 0 to 10 inches  
*Frequency of flooding:* Frequent  
*Frequency of ponding:* None  
*Calcium carbonate, maximum in profile:* 60 percent  
*Salinity, maximum in profile:* Moderately saline to strongly saline (8.0 to 16.0 mmhos/cm)  
*Sodium adsorption ratio, maximum in profile:* 30.0  
*Available water storage in profile:* Moderate (about 7.1 inches)

#### **Interpretive groups**

*Land capability classification (irrigated):* None specified  
*Land capability classification (nonirrigated):* 7w



## Custom Soil Resource Report

*Hydrologic Soil Group:* C/D  
*Ecological site:* Wet Fresh Meadow (R028AY020UT)  
*Hydric soil rating:* Yes

### Minor Components

#### Peat surface soils

*Percent of map unit:* 5 percent  
*Landform:* Lake terraces  
*Landform position (three-dimensional):* Tread  
*Down-slope shape:* Linear  
*Across-slope shape:* Linear  
*Hydric soil rating:* Yes

### PaA—Parleys loam, 0 to 4 percent slopes

#### Map Unit Setting

*National map unit symbol:* 2tjtg  
*Elevation:* 4,210 to 5,400 feet  
*Mean annual precipitation:* 12 to 18 inches  
*Mean annual air temperature:* 49 to 51 degrees F  
*Frost-free period:* 160 to 190 days  
*Farmland classification:* Prime farmland if irrigated

#### Map Unit Composition

*Parleys and similar soils:* 85 percent  
*Estimates are based on observations, descriptions, and transects of the mapunit.*

#### Description of Parleys

##### Setting

*Landform:* Lake terraces, stream terraces  
*Landform position (three-dimensional):* Tread  
*Down-slope shape:* Linear  
*Across-slope shape:* Linear  
*Parent material:* Lacustrine deposits and/or alluvium derived from igneous and sedimentary rock

##### Typical profile

*Ap - 0 to 6 inches:* loam  
*A - 6 to 15 inches:* loam  
*Bt - 15 to 26 inches:* clay loam  
*Bk - 26 to 33 inches:* silty clay loam  
*CBk - 33 to 48 inches:* silt loam  
*C - 48 to 60 inches:* stratified fine sand to silty clay loam

##### Properties and qualities

*Slope:* 0 to 4 percent  
*Depth to restrictive feature:* More than 80 inches  
*Natural drainage class:* Well drained

## Custom Soil Resource Report

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high (0.20 to 0.60 in/hr)

*Depth to water table:* More than 80 inches

*Frequency of flooding:* None

*Frequency of ponding:* None

*Calcium carbonate, maximum in profile:* 35 percent

*Salinity, maximum in profile:* Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)

*Sodium adsorption ratio, maximum in profile:* 5.0

*Available water storage in profile:* High (about 10.8 inches)

### Interpretive groups

*Land capability classification (irrigated):* 2e

*Land capability classification (nonirrigated):* 4e

*Hydrologic Soil Group:* C

*Ecological site:* Upland Loam (Bonneville Big Sagebrush) North (R028AY310UT)

*Other vegetative classification:* Upland Loam (Mountain Big Sagebrush)  
(028AY310UT)

*Hydric soil rating:* No

## PaB—Parleys loam, 1 to 3 percent slopes

### Map Unit Setting

*National map unit symbol:* j559

*Elevation:* 4,300 to 5,050 feet

*Mean annual precipitation:* 14 to 18 inches

*Mean annual air temperature:* 48 to 52 degrees F

*Frost-free period:* 160 to 180 days

*Farmland classification:* Prime farmland if irrigated

### Map Unit Composition

*Parleys and similar soils:* 100 percent

*Estimates are based on observations, descriptions, and transects of the mapunit.*

### Description of Parleys

#### Setting

*Landform:* Lake terraces

*Landform position (three-dimensional):* Tread

*Down-slope shape:* Linear

*Across-slope shape:* Linear

*Parent material:* Lacustrine deposits

#### Typical profile

*Ap - 0 to 6 inches:* loam

*A12 - 6 to 15 inches:* loam

*B2t - 15 to 26 inches:* clay loam

*B3ca - 26 to 33 inches:* silty clay loam

*C1ca - 33 to 48 inches:* silt loam

*C2 - 48 to 60 inches:* stratified fine sand to silty clay loam

**Properties and qualities**

*Slope:* 1 to 3 percent  
*Depth to restrictive feature:* More than 80 inches  
*Natural drainage class:* Well drained  
*Runoff class:* Medium  
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately low to moderately high (0.06 to 0.20 in/hr)  
*Depth to water table:* More than 80 inches  
*Frequency of flooding:* None  
*Frequency of ponding:* None  
*Calcium carbonate, maximum in profile:* 40 percent  
*Salinity, maximum in profile:* Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)  
*Available water storage in profile:* High (about 9.4 inches)

**Interpretive groups**

*Land capability classification (irrigated):* 1  
*Land capability classification (nonirrigated):* 3c  
*Hydrologic Soil Group:* C  
*Ecological site:* Upland Loam (Bonneville Big Sagebrush) North (R028AY310UT)  
*Other vegetative classification:* Upland Loam (Mountain Big Sagebrush) (028AY310UT)  
*Hydric soil rating:* No

**PaC—Parleys loam, 3 to 8 percent slopes**

**Map Unit Setting**

*National map unit symbol:* 2tjsx  
*Elevation:* 4,210 to 5,910 feet  
*Mean annual precipitation:* 12 to 18 inches  
*Mean annual air temperature:* 49 to 51 degrees F  
*Frost-free period:* 160 to 190 days  
*Farmland classification:* Prime farmland if irrigated

**Map Unit Composition**

*Parleys and similar soils:* 90 percent  
*Estimates are based on observations, descriptions, and transects of the mapunit.*

**Description of Parleys**

**Setting**

*Landform:* Lake terraces, stream terraces  
*Landform position (three-dimensional):* Tread  
*Down-slope shape:* Concave  
*Across-slope shape:* Concave  
*Parent material:* Lacustrine deposits and/or alluvium derived from igneous and sedimentary rock

**Typical profile**

*Ap - 0 to 6 inches:* loam  
*A - 6 to 11 inches:* loam

## Custom Soil Resource Report

*Bt1 - 11 to 15 inches:* silty clay loam  
*Bt2 - 15 to 19 inches:* silty clay loam  
*Btk - 19 to 26 inches:* silty clay loam  
*Bk - 26 to 30 inches:* silty clay loam  
*CBk - 30 to 42 inches:* silty clay loam  
*C1 - 42 to 52 inches:* silty clay loam  
*C2 - 52 to 60 inches:* silt loam

### Properties and qualities

*Slope:* 3 to 8 percent  
*Depth to restrictive feature:* More than 80 inches  
*Natural drainage class:* Well drained  
*Runoff class:* Low  
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high (0.20 to 0.60 in/hr)  
*Depth to water table:* More than 80 inches  
*Frequency of flooding:* None  
*Frequency of ponding:* None  
*Calcium carbonate, maximum in profile:* 40 percent  
*Salinity, maximum in profile:* Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)  
*Sodium adsorption ratio, maximum in profile:* 5.0  
*Available water storage in profile:* High (about 11.0 inches)

### Interpretive groups

*Land capability classification (irrigated):* 3e  
*Land capability classification (nonirrigated):* 4e  
*Hydrologic Soil Group:* C  
*Ecological site:* Upland Loam (Bonneville Big Sagebrush) North (R028AY310UT)  
*Other vegetative classification:* Upland Loam (Mountain Big Sagebrush) (028AY310UT)  
*Hydric soil rating:* No

## PaD—Parleys loam, 6 to 10 percent slopes

### Map Unit Setting

*National map unit symbol:* j55c  
*Elevation:* 4,300 to 5,050 feet  
*Mean annual precipitation:* 14 to 18 inches  
*Mean annual air temperature:* 48 to 52 degrees F  
*Frost-free period:* 160 to 180 days  
*Farmland classification:* Not prime farmland

### Map Unit Composition

*Parleys and similar soils:* 100 percent  
*Estimates are based on observations, descriptions, and transects of the mapunit.*

### Description of Parleys

#### Setting

*Landform:* Escarpments, lake terraces  
*Landform position (three-dimensional):* Tread



## Custom Soil Resource Report

*Down-slope shape:* Linear  
*Across-slope shape:* Linear  
*Parent material:* Lacustrine deposits

### Typical profile

*Ap - 0 to 6 inches:* loam  
*A12 - 6 to 15 inches:* loam  
*B2t - 15 to 26 inches:* clay loam  
*B3ca - 26 to 33 inches:* silty clay loam  
*C1ca - 33 to 48 inches:* silt loam  
*C2 - 48 to 60 inches:* stratified fine sand to silty clay loam

### Properties and qualities

*Slope:* 6 to 10 percent  
*Depth to restrictive feature:* More than 80 inches  
*Natural drainage class:* Well drained  
*Runoff class:* High  
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately low to moderately high (0.06 to 0.20 in/hr)  
*Depth to water table:* More than 80 inches  
*Frequency of flooding:* None  
*Frequency of ponding:* None  
*Calcium carbonate, maximum in profile:* 40 percent  
*Salinity, maximum in profile:* Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)  
*Available water storage in profile:* High (about 9.4 inches)

### Interpretive groups

*Land capability classification (irrigated):* 2e  
*Land capability classification (nonirrigated):* 3e  
*Hydrologic Soil Group:* C  
*Ecological site:* Upland Loam (Bonneville Big Sagebrush) North (R028AY310UT)  
*Other vegetative classification:* Upland Loam (Mountain Big Sagebrush) (028AY310UT)  
*Hydric soil rating:* No

## PEP—Pintailake-Eimarsh-Playas complex, 0 to 1 percent slopes

### Map Unit Setting

*National map unit symbol:* 1qr5y  
*Elevation:* 4,190 to 4,290 feet  
*Mean annual precipitation:* 12 to 16 inches  
*Mean annual air temperature:* 48 to 52 degrees F  
*Frost-free period:* 140 to 180 days  
*Farmland classification:* Not prime farmland

### Map Unit Composition

*Pintailake and similar soils:* 45 percent  
*Eimarsh and similar soils:* 30 percent  
*Playas:* 10 percent  
*Minor components:* 15 percent  
*Estimates are based on observations, descriptions, and transects of the mapunit.*

## Description of Pintailake

### Setting

*Landform:* Lake plains  
*Landform position (three-dimensional):* Talf, dip  
*Down-slope shape:* Linear  
*Across-slope shape:* Linear

### Typical profile

*Oi - 0 to 3 inches:* slightly decomposed plant material  
*H1 - 3 to 10 inches:* silt loam  
*H2 - 10 to 31 inches:* silty clay loam  
*H3 - 31 to 46 inches:* silty clay  
*H4 - 46 to 60 inches:* silty clay

### Properties and qualities

*Slope:* 0 to 1 percent  
*Depth to restrictive feature:* More than 80 inches  
*Natural drainage class:* Very poorly drained  
*Runoff class:* Medium  
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately low to moderately high (0.06 to 0.20 in/hr)  
*Depth to water table:* About 0 to 10 inches  
*Frequency of flooding:* None  
*Frequency of ponding:* Frequent  
*Calcium carbonate, maximum in profile:* 30 percent  
*Gypsum, maximum in profile:* 5 percent  
*Salinity, maximum in profile:* Moderately saline to strongly saline (10.0 to 33.0 mmhos/cm)  
*Sodium adsorption ratio, maximum in profile:* 100.0  
*Available water storage in profile:* Moderate (about 7.1 inches)

### Interpretive groups

*Land capability classification (irrigated):* None specified  
*Land capability classification (nonirrigated):* 7w  
*Hydrologic Soil Group:* C/D  
*Ecological site:* Lakeshore Marsh (R028AY025UT)  
*Hydric soil rating:* Yes

## Description of Eimarsh

### Setting

*Landform:* Lake plains  
*Landform position (three-dimensional):* Talf, rise  
*Down-slope shape:* Linear  
*Across-slope shape:* Linear

### Typical profile

*H1 - 0 to 5 inches:* silty clay loam  
*H2 - 5 to 15 inches:* silty clay  
*H3 - 15 to 60 inches:* silty clay

### Properties and qualities

*Slope:* 0 to 1 percent  
*Depth to restrictive feature:* More than 80 inches  
*Natural drainage class:* Poorly drained  
*Runoff class:* Medium

## Custom Soil Resource Report

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately low to moderately high (0.06 to 0.20 in/hr)

*Depth to water table:* About 10 to 20 inches

*Frequency of flooding:* None

*Frequency of ponding:* Frequent

*Calcium carbonate, maximum in profile:* 30 percent

*Gypsum, maximum in profile:* 10 percent

*Salinity, maximum in profile:* Strongly saline (30.0 to 80.0 mmhos/cm)

*Sodium adsorption ratio, maximum in profile:* 100.0

*Available water storage in profile:* Very low (about 2.3 inches)

### Interpretive groups

*Land capability classification (irrigated):* None specified

*Land capability classification (nonirrigated):* 7w

*Hydrologic Soil Group:* C/D

*Ecological site:* Wet Saline Meadow (Saltgrass) (R028AY024UT)

*Hydric soil rating:* Yes

### Description of Playas

#### Setting

*Landform:* Lake plains

*Landform position (three-dimensional):* Talf, dip

*Down-slope shape:* Linear

*Across-slope shape:* Linear

#### Typical profile

*H1 - 0 to 60 inches:* stratified fine sandy loam to silty clay

#### Properties and qualities

*Slope:* 0 to 1 percent

*Natural drainage class:* Very poorly drained

*Runoff class:* Negligible

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately low to moderately high (0.06 to 0.20 in/hr)

*Depth to water table:* About 0 inches

*Frequency of ponding:* Frequent

*Calcium carbonate, maximum in profile:* 40 percent

*Gypsum, maximum in profile:* 2 percent

*Salinity, maximum in profile:* Strongly saline (32.0 to 100.0 mmhos/cm)

*Sodium adsorption ratio, maximum in profile:* 90.0

*Available water storage in profile:* Very low (about 1.2 inches)

### Interpretive groups

*Land capability classification (irrigated):* None specified

*Land capability classification (nonirrigated):* 8w

*Hydrologic Soil Group:* D

*Ecological site:* Desert Salty Silt (Iodinebush) (R028AY132UT)

*Hydric soil rating:* Yes

### Minor Components

#### Water

*Percent of map unit:* 5 percent

#### Saltair

*Percent of map unit:* 5 percent

*Landform:* Lake plains

## Custom Soil Resource Report

*Landform position (three-dimensional):* Talf, dip  
*Down-slope shape:* Linear  
*Across-slope shape:* Linear  
*Ecological site:* Desert Salty Silt (Iodinebush) (R028AY132UT)  
*Hydric soil rating:* Yes

### **Pogal**

*Percent of map unit:* 5 percent  
*Ecological site:* Upland Alkali Loam (Wyoming Big Sagebrush) (R028AY332UT)

## **PNA—Payson-Warm Springs complex, 0 to 3 percent slopes**

### **Map Unit Setting**

*National map unit symbol:* j557  
*Elevation:* 4,200 to 4,600 feet  
*Mean annual precipitation:* 14 to 18 inches  
*Mean annual air temperature:* 48 to 52 degrees F  
*Frost-free period:* 160 to 180 days  
*Farmland classification:* Not prime farmland

### **Map Unit Composition**

*Payson and similar soils:* 65 percent  
*Warm springs, deep over clay, and similar soils:* 30 percent  
*Minor components:* 5 percent  
*Estimates are based on observations, descriptions, and transects of the mapunit.*

### **Description of Payson**

#### **Setting**

*Landform:* Swales on lake terraces  
*Landform position (three-dimensional):* Tread, talf, dip  
*Down-slope shape:* Concave, linear  
*Across-slope shape:* Concave, linear  
*Parent material:* Lacustrine deposits

#### **Typical profile**

*A21 - 0 to 2 inches:* silt loam  
*A22 - 2 to 4 inches:* silt loam  
*B2T - 4 to 9 inches:* silty clay loam  
*B3CA - 9 to 24 inches:* clay  
*C - 24 to 60 inches:* silt loam

#### **Properties and qualities**

*Slope:* 0 to 3 percent  
*Depth to restrictive feature:* More than 80 inches  
*Natural drainage class:* Somewhat poorly drained  
*Runoff class:* Medium



## Custom Soil Resource Report

*Capacity of the most limiting layer to transmit water (Ksat):* Low to moderately low  
(0.01 to 0.06 in/hr)

*Depth to water table:* About 30 to 48 inches

*Frequency of flooding:* Rare

*Frequency of ponding:* None

*Calcium carbonate, maximum in profile:* 40 percent

*Salinity, maximum in profile:* Slightly saline to strongly saline (4.0 to 16.0  
mmhos/cm)

*Sodium adsorption ratio, maximum in profile:* 60.0

*Available water storage in profile:* High (about 9.1 inches)

### Interpretive groups

*Land capability classification (irrigated):* None specified

*Land capability classification (nonirrigated):* 7w

*Hydrologic Soil Group:* D

*Ecological site:* Alkali Bottom (Alkali Sacaton) (R028AY001UT)

*Hydric soil rating:* No

## Description of Warm Springs, Deep Over Clay

### Setting

*Landform:* Knolls on lake terraces

*Landform position (three-dimensional):* Tread

*Down-slope shape:* Linear, convex

*Across-slope shape:* Linear, convex

*Parent material:* Lacustrine deposits

### Typical profile

*H1 - 0 to 8 inches:* fine sandy loam

*H2 - 8 to 15 inches:* fine sandy loam

*H3 - 15 to 24 inches:* fine sandy loam

*H4 - 24 to 37 inches:* fine sandy loam

*H5 - 37 to 60 inches:* clay

### Properties and qualities

*Slope:* 0 to 1 percent

*Depth to restrictive feature:* More than 80 inches

*Natural drainage class:* Somewhat poorly drained

*Runoff class:* Medium

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately low to  
moderately high (0.06 to 0.20 in/hr)

*Depth to water table:* About 30 to 48 inches

*Frequency of flooding:* Rare

*Frequency of ponding:* None

*Calcium carbonate, maximum in profile:* 30 percent

*Salinity, maximum in profile:* Very slightly saline to strongly saline (2.0 to 16.0  
mmhos/cm)

*Sodium adsorption ratio, maximum in profile:* 30.0

*Available water storage in profile:* Low (about 5.7 inches)

### Interpretive groups

*Land capability classification (irrigated):* 3w

*Land capability classification (nonirrigated):* 7w

*Hydrologic Soil Group:* C

*Ecological site:* Alkali Bottom (Alkali Sacaton) (R028AY001UT)

*Hydric soil rating:* No

**Minor Components**

**Alkali soils, hydric, not correlated**

*Percent of map unit:* 2 percent  
*Landform:* Lake terraces  
*Landform position (three-dimensional):* Tread  
*Down-slope shape:* Linear  
*Across-slope shape:* Linear  
*Hydric soil rating:* Yes

**Hardpan soils**

*Percent of map unit:* 2 percent

**Ponded soils, hydric, not correlated**

*Percent of map unit:* 1 percent  
*Landform:* Lake terraces  
*Landform position (three-dimensional):* Tread  
*Down-slope shape:* Linear  
*Across-slope shape:* Linear  
*Hydric soil rating:* Yes

**Rw—Roshe Springs silt loam, 0 to 3 percent slopes**

**Map Unit Setting**

*National map unit symbol:* j55z  
*Elevation:* 4,200 to 4,600 feet  
*Mean annual precipitation:* 14 to 18 inches  
*Mean annual air temperature:* 48 to 52 degrees F  
*Frost-free period:* 160 to 180 days  
*Farmland classification:* Not prime farmland

**Map Unit Composition**

*Roshe springs, shallow water table, and similar soils:* 100 percent  
*Estimates are based on observations, descriptions, and transects of the mapunit.*

**Description of Roshe Springs, Shallow Water Table**

**Setting**

*Landform:* Lake terraces  
*Landform position (three-dimensional):* Tread  
*Down-slope shape:* Linear  
*Across-slope shape:* Linear  
*Parent material:* Alluvium and/or lacustrine deposits

**Typical profile**

*Ap - 0 to 7 inches:* silt loam  
*A12ca - 7 to 12 inches:* loam  
*C1cag - 12 to 33 inches:* loam  
*C2cag - 33 to 52 inches:* loam

## Custom Soil Resource Report

*C3g - 52 to 80 inches: sandy loam*

### Properties and qualities

*Slope: 0 to 3 percent*

*Depth to restrictive feature: More than 80 inches*

*Natural drainage class: Very poorly drained*

*Runoff class: Very high*

*Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.60 to 2.00 in/hr)*

*Depth to water table: About 0 to 10 inches*

*Frequency of flooding: Occasional*

*Frequency of ponding: None*

*Calcium carbonate, maximum in profile: 80 percent*

*Gypsum, maximum in profile: 2 percent*

*Salinity, maximum in profile: Nonsaline to slightly saline (0.0 to 4.0 mmhos/cm)*

*Sodium adsorption ratio, maximum in profile: 13.0*

*Available water storage in profile: High (about 9.2 inches)*

### Interpretive groups

*Land capability classification (irrigated): 4w*

*Land capability classification (nonirrigated): 7w*

*Hydrologic Soil Group: B/D*

*Ecological site: Wet Fresh Meadow (R028AY020UT)*

*Hydric soil rating: Yes*

## Sa—Saltair silty clay loam, 0 to 3 percent slopes

### Map Unit Setting

*National map unit symbol: j560*

*Elevation: 4,200 to 4,300 feet*

*Mean annual precipitation: 14 to 18 inches*

*Mean annual air temperature: 48 to 52 degrees F*

*Frost-free period: 160 to 180 days*

*Farmland classification: Not prime farmland*

### Map Unit Composition

*Saltair and similar soils: 100 percent*

*Estimates are based on observations, descriptions, and transects of the mapunit.*

### Description of Saltair

#### Setting

*Landform: Lake terraces*

*Landform position (three-dimensional): Tread*

*Down-slope shape: Linear*

*Across-slope shape: Linear*

*Parent material: Lacustrine deposits*

#### Typical profile

*H1 - 0 to 1 inches: silt loam*

*H2 - 1 to 4 inches: silt loam*

*H3 - 4 to 9 inches: silt loam*

## Custom Soil Resource Report

*H4 - 9 to 20 inches:* silty clay loam  
*H5 - 20 to 32 inches:* silt loam  
*H6 - 32 to 60 inches:* silty clay loam

### Properties and qualities

*Slope:* 0 to 3 percent  
*Depth to restrictive feature:* More than 80 inches  
*Natural drainage class:* Very poorly drained  
*Runoff class:* Very high  
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately low to moderately high (0.06 to 0.20 in/hr)  
*Depth to water table:* About 0 to 12 inches  
*Frequency of flooding:* Occasional  
*Frequency of ponding:* Occasional  
*Calcium carbonate, maximum in profile:* 40 percent  
*Gypsum, maximum in profile:* 2 percent  
*Salinity, maximum in profile:* Strongly saline (100.0 to 250.0 mmhos/cm)  
*Sodium adsorption ratio, maximum in profile:* 1,000.0  
*Available water storage in profile:* Very low (about 0.6 inches)

### Interpretive groups

*Land capability classification (irrigated):* None specified  
*Land capability classification (nonirrigated):* 8  
*Hydrologic Soil Group:* C/D  
*Ecological site:* Desert Salty Silt (Iodinebush) (R028AY132UT)  
*Hydric soil rating:* Yes

## SkA—Sunset loam, drained, 0 to 1 percent slopes

### Map Unit Setting

*National map unit symbol:* j568  
*Elevation:* 4,200 to 4,800 feet  
*Mean annual precipitation:* 14 to 18 inches  
*Mean annual air temperature:* 48 to 52 degrees F  
*Frost-free period:* 160 to 180 days  
*Farmland classification:* Prime farmland if irrigated

### Map Unit Composition

*Sunset and similar soils:* 100 percent  
*Estimates are based on observations, descriptions, and transects of the mapunit.*

### Description of Sunset

#### Setting

*Landform:* Stream terraces, flood plains  
*Landform position (three-dimensional):* Tread, talf, dip  
*Down-slope shape:* Linear  
*Across-slope shape:* Concave  
*Parent material:* Alluvium

#### Typical profile

*Ap - 0 to 7 inches:* loam



## Custom Soil Resource Report

*A12 - 7 to 18 inches:* loam  
*AC - 18 to 32 inches:* loam  
*C1 - 32 to 44 inches:* loam  
*C2 - 44 to 68 inches:* loam

### Properties and qualities

*Slope:* 0 to 1 percent  
*Depth to restrictive feature:* More than 80 inches  
*Natural drainage class:* Moderately well drained  
*Runoff class:* Low  
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high to high (0.60 to 2.00 in/hr)  
*Depth to water table:* About 42 to 60 inches  
*Frequency of flooding:* Rare  
*Frequency of ponding:* None  
*Calcium carbonate, maximum in profile:* 15 percent  
*Salinity, maximum in profile:* Nonsaline to slightly saline (0.0 to 4.0 mmhos/cm)  
*Available water storage in profile:* High (about 9.6 inches)

### Interpretive groups

*Land capability classification (irrigated):* 2w  
*Land capability classification (nonirrigated):* 6w  
*Hydrologic Soil Group:* B  
*Ecological site:* Semiwet Fresh Meadow (R028AY012UT)  
*Hydric soil rating:* No

## SkB—Sunset loam, drained, 1 to 3 percent slopes

### Map Unit Setting

*National map unit symbol:* j569  
*Elevation:* 4,200 to 4,800 feet  
*Mean annual precipitation:* 14 to 18 inches  
*Mean annual air temperature:* 48 to 52 degrees F  
*Frost-free period:* 160 to 180 days  
*Farmland classification:* Prime farmland if irrigated

### Map Unit Composition

*Sunset and similar soils:* 100 percent  
*Estimates are based on observations, descriptions, and transects of the mapunit.*

### Description of Sunset

#### Setting

*Landform:* Stream terraces  
*Landform position (three-dimensional):* Tread  
*Down-slope shape:* Linear  
*Across-slope shape:* Concave  
*Parent material:* Alluvium

#### Typical profile

*Ap - 0 to 7 inches:* loam  
*A12 - 7 to 18 inches:* loam

## Custom Soil Resource Report

*AC - 18 to 32 inches: loam*  
*C1 - 32 to 44 inches: loam*  
*C2 - 44 to 68 inches: loam*

### Properties and qualities

*Slope: 1 to 3 percent*  
*Depth to restrictive feature: More than 80 inches*  
*Natural drainage class: Moderately well drained*  
*Runoff class: Low*  
*Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.60 to 2.00 in/hr)*  
*Depth to water table: About 42 to 60 inches*  
*Frequency of flooding: Rare*  
*Frequency of ponding: None*  
*Calcium carbonate, maximum in profile: 15 percent*  
*Salinity, maximum in profile: Nonsaline to slightly saline (0.0 to 4.0 mmhos/cm)*  
*Available water storage in profile: High (about 9.6 inches)*

### Interpretive groups

*Land capability classification (irrigated): 2w*  
*Land capability classification (nonirrigated): 6w*  
*Hydrologic Soil Group: B*  
*Ecological site: Semiwet Fresh Meadow (R028AY012UT)*  
*Hydric soil rating: No*

## So—Syracuse loamy fine sand, 0 to 2 percent slopes

### Map Unit Setting

*National map unit symbol: j56d*  
*Elevation: 4,200 to 4,600 feet*  
*Mean annual precipitation: 14 to 18 inches*  
*Mean annual air temperature: 48 to 52 degrees F*  
*Frost-free period: 160 to 180 days*  
*Farmland classification: Not prime farmland*

### Map Unit Composition

*Syracuse and similar soils: 95 percent*  
*Minor components: 5 percent*  
*Estimates are based on observations, descriptions, and transects of the mapunit.*

### Description of Syracuse

#### Setting

*Landform: Lake terraces*  
*Landform position (three-dimensional): Tread*  
*Down-slope shape: Linear*  
*Across-slope shape: Linear*  
*Parent material: Alluvium and/or lacustrine deposits*

#### Typical profile

*A1 - 0 to 11 inches: loamy fine sand*  
*AC - 11 to 21 inches: sandy loam*

## Custom Soil Resource Report

*C1ca - 21 to 30 inches:* sandy loam

*C2ca - 30 to 60 inches:* sandy loam

### Properties and qualities

*Slope:* 0 to 2 percent

*Depth to restrictive feature:* More than 80 inches

*Natural drainage class:* Somewhat poorly drained

*Runoff class:* Very low

*Capacity of the most limiting layer to transmit water (Ksat):* High (2.00 to 6.00 in/hr)

*Depth to water table:* About 36 to 48 inches

*Frequency of flooding:* None

*Frequency of ponding:* None

*Calcium carbonate, maximum in profile:* 30 percent

*Salinity, maximum in profile:* Very slightly saline to moderately saline (2.0 to 8.0 mmhos/cm)

*Sodium adsorption ratio, maximum in profile:* 30.0

*Available water storage in profile:* Low (about 5.9 inches)

### Interpretive groups

*Land capability classification (irrigated):* 3w

*Land capability classification (nonirrigated):* 7w

*Hydrologic Soil Group:* A

*Ecological site:* Semiwet Fresh Meadow (R028AY012UT)

*Hydric soil rating:* No

### Minor Components

#### Alkaline soils

*Percent of map unit:* 5 percent

*Landform:* Depressions

*Landform position (three-dimensional):* Dip

*Down-slope shape:* Concave

*Across-slope shape:* Concave

*Hydric soil rating:* Yes

## SPL—Saltair-Playas-Lasil complex, 0 to 1 percent slopes

### Map Unit Setting

*National map unit symbol:* 1qr5z

*Elevation:* 4,190 to 4,290 feet

*Mean annual precipitation:* 12 to 16 inches

*Mean annual air temperature:* 48 to 52 degrees F

*Frost-free period:* 140 to 160 days

*Farmland classification:* Not prime farmland

### Map Unit Composition

*Saltair and similar soils:* 40 percent

*Playas:* 35 percent

*Lasil and similar soils:* 20 percent

## Custom Soil Resource Report

*Minor components: 5 percent*

*Estimates are based on observations, descriptions, and transects of the mapunit.*

### Description of Saltair

#### Setting

*Landform: Lake plains*

*Landform position (three-dimensional): Talf, dip*

*Down-slope shape: Linear*

*Across-slope shape: Linear*

*Parent material: Lacustrine deposits derived from mixed sources*

#### Typical profile

*H1 - 0 to 7 inches: silty clay loam*

*H2 - 7 to 20 inches: silty clay loam*

*H3 - 20 to 30 inches: silt loam*

*H4 - 30 to 60 inches: silty clay loam*

#### Properties and qualities

*Slope: 0 to 1 percent*

*Depth to restrictive feature: More than 80 inches*

*Natural drainage class: Poorly drained*

*Runoff class: Negligible*

*Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)*

*Depth to water table: About 10 to 20 inches*

*Frequency of flooding: None*

*Frequency of ponding: Occasional*

*Calcium carbonate, maximum in profile: 40 percent*

*Salinity, maximum in profile: Strongly saline (100.0 to 250.0 mmhos/cm)*

*Sodium adsorption ratio, maximum in profile: 1,000.0*

*Available water storage in profile: Low (about 4.2 inches)*

#### Interpretive groups

*Land capability classification (irrigated): None specified*

*Land capability classification (nonirrigated): 8w*

*Hydrologic Soil Group: C/D*

*Ecological site: Desert Salty Silt (Iodinebush) (R028AY132UT)*

*Hydric soil rating: Yes*

### Description of Playas

#### Setting

*Landform: Lake plains*

*Landform position (three-dimensional): Talf, dip*

*Down-slope shape: Linear*

*Across-slope shape: Linear*

#### Typical profile

*H1 - 0 to 60 inches: stratified fine sandy loam to silty clay*

#### Properties and qualities

*Slope: 0 to 1 percent*

*Natural drainage class: Very poorly drained*

*Runoff class: Negligible*

*Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)*

*Depth to water table: About 0 inches*



## Custom Soil Resource Report

*Frequency of ponding:* Frequent  
*Calcium carbonate, maximum in profile:* 40 percent  
*Gypsum, maximum in profile:* 2 percent  
*Salinity, maximum in profile:* Strongly saline (32.0 to 100.0 mmhos/cm)  
*Sodium adsorption ratio, maximum in profile:* 90.0  
*Available water storage in profile:* Very low (about 1.2 inches)

### Interpretive groups

*Land capability classification (irrigated):* None specified  
*Land capability classification (nonirrigated):* 8w  
*Hydrologic Soil Group:* D  
*Ecological site:* Desert Salty Silt (Iodinebush) (R028AY132UT)  
*Hydric soil rating:* Yes

## Description of Lasil

### Setting

*Landform:* Lake plains, lake terraces  
*Landform position (three-dimensional):* Tread, talf, rise  
*Down-slope shape:* Linear  
*Across-slope shape:* Linear  
*Parent material:* Lacustrine deposits

### Typical profile

*H1 - 0 to 6 inches:* silt loam  
*H2 - 6 to 9 inches:* silt loam  
*H3 - 9 to 13 inches:* silty clay loam  
*H4 - 13 to 19 inches:* silty clay loam  
*H5 - 19 to 23 inches:* silty clay loam  
*H6 - 23 to 60 inches:* silty clay loam

### Properties and qualities

*Slope:* 0 to 1 percent  
*Depth to restrictive feature:* More than 80 inches  
*Natural drainage class:* Somewhat poorly drained  
*Runoff class:* Medium  
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately low to moderately high (0.06 to 0.20 in/hr)  
*Depth to water table:* About 30 to 48 inches  
*Frequency of flooding:* Very rare  
*Frequency of ponding:* None  
*Calcium carbonate, maximum in profile:* 30 percent  
*Salinity, maximum in profile:* Strongly saline (16.0 to 32.0 mmhos/cm)  
*Sodium adsorption ratio, maximum in profile:* 60.0  
*Available water storage in profile:* Low (about 4.7 inches)

### Interpretive groups

*Land capability classification (irrigated):* None specified  
*Land capability classification (nonirrigated):* 7w  
*Hydrologic Soil Group:* D  
*Ecological site:* Alkali Bottom (Alkali Sacaton) (R028AY001UT)  
*Hydric soil rating:* No

## Minor Components

### Pogal

*Percent of map unit:* 2 percent

## Custom Soil Resource Report

*Ecological site:* Upland Alkali Loam (Wyoming Big Sagebrush) (R028AY332UT)

### **Eimarsh**

*Percent of map unit:* 2 percent

*Landform:* Lake plains

*Landform position (three-dimensional):* Talf, dip

*Down-slope shape:* Linear

*Across-slope shape:* Linear

*Ecological site:* Wet Saline Meadow (Saltgrass) (R028AY024UT)

*Hydric soil rating:* Yes

### **Pintailake**

*Percent of map unit:* 1 percent

*Landform:* Lake plains

*Landform position (three-dimensional):* Talf, dip

*Down-slope shape:* Linear

*Across-slope shape:* Linear

*Ecological site:* Lakeshore Marsh (R028AY025UT)

*Hydric soil rating:* Yes

## **Sy—Syracuse loamy fine sand, moderately saline, sodic, 0 to 2 percent slopes**

### **Map Unit Setting**

*National map unit symbol:* j56f

*Elevation:* 4,200 to 4,600 feet

*Mean annual precipitation:* 14 to 18 inches

*Mean annual air temperature:* 48 to 52 degrees F

*Frost-free period:* 160 to 180 days

*Farmland classification:* Not prime farmland

### **Map Unit Composition**

*Syracuse and similar soils:* 95 percent

*Minor components:* 5 percent

*Estimates are based on observations, descriptions, and transects of the mapunit.*

### **Description of Syracuse**

#### **Setting**

*Landform:* Lake terraces

*Landform position (three-dimensional):* Tread

*Down-slope shape:* Linear

*Across-slope shape:* Linear

*Parent material:* Alluvium and/or lacustrine deposits

#### **Typical profile**

*A1 - 0 to 11 inches:* loamy fine sand

*Ac - 11 to 21 inches:* sandy loam

## Custom Soil Resource Report

*C1ca - 21 to 30 inches: sandy loam*

*C2ca - 30 to 60 inches: sandy loam*

### Properties and qualities

*Slope: 0 to 2 percent*

*Depth to restrictive feature: More than 80 inches*

*Natural drainage class: Somewhat poorly drained*

*Runoff class: Low*

*Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.60 to 2.00 in/hr)*

*Depth to water table: About 24 to 36 inches*

*Frequency of flooding: Rare*

*Frequency of ponding: None*

*Calcium carbonate, maximum in profile: 30 percent*

*Salinity, maximum in profile: Moderately saline to strongly saline (8.0 to 16.0 mmhos/cm)*

*Sodium adsorption ratio, maximum in profile: 30.0*

*Available water storage in profile: Low (about 4.7 inches)*

### Interpretive groups

*Land capability classification (irrigated): 3w*

*Land capability classification (nonirrigated): 7w*

*Hydrologic Soil Group: C*

*Ecological site: Alkali Bottom (Alkali Sacaton) (R028AY001UT)*

*Hydric soil rating: No*

### Minor Components

#### Alkaline soils, fine sandy loam

*Percent of map unit: 5 percent*

*Landform: Depressions*

*Landform position (three-dimensional): Dip*

*Down-slope shape: Concave*

*Across-slope shape: Concave*

*Hydric soil rating: Yes*

## TbA—Timpanogos loam, 0 to 1 percent slopes

### Map Unit Setting

*National map unit symbol: j56j*

*Elevation: 4,300 to 5,050 feet*

*Mean annual precipitation: 14 to 18 inches*

*Mean annual air temperature: 48 to 52 degrees F*

*Frost-free period: 160 to 180 days*

*Farmland classification: Prime farmland if irrigated*

### Map Unit Composition

*Timpanogos and similar soils: 95 percent*

*Minor components: 5 percent*

*Estimates are based on observations, descriptions, and transects of the mapunit.*

## Description of Timpanogos

### Setting

*Landform:* Lake terraces  
*Landform position (three-dimensional):* Tread  
*Down-slope shape:* Linear  
*Across-slope shape:* Linear  
*Parent material:* Lacustrine deposits

### Typical profile

*Ap - 0 to 6 inches:* loam  
*A12 - 6 to 15 inches:* loam  
*B2t - 15 to 27 inches:* loam  
*C1ca - 27 to 39 inches:* loam  
*C2 - 39 to 60 inches:* fine sandy loam

### Properties and qualities

*Slope:* 0 to 1 percent  
*Depth to restrictive feature:* More than 80 inches  
*Natural drainage class:* Well drained  
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high to high (0.60 to 2.00 in/hr)  
*Depth to water table:* More than 80 inches  
*Frequency of flooding:* None  
*Frequency of ponding:* None  
*Calcium carbonate, maximum in profile:* 40 percent  
*Salinity, maximum in profile:* Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)  
*Sodium adsorption ratio, maximum in profile:* 13.0  
*Available water storage in profile:* Moderate (about 8.5 inches)

### Interpretive groups

*Land capability classification (irrigated):* 1  
*Land capability classification (nonirrigated):* 3s  
*Hydrologic Soil Group:* B  
*Ecological site:* Upland Loam (Bonneville Big Sagebrush) North (R028AY310UT)  
*Other vegetative classification:* Upland Loam (Mountain Big Sagebrush) (028AY310UT)  
*Hydric soil rating:* No

### Minor Components

#### Somewhat poorly drained soils

*Percent of map unit:* 5 percent  
*Hydric soil rating:* No

## TbB—Timpanogos loam, 1 to 3 percent slopes

### Map Unit Setting

*National map unit symbol:* j56k



## Custom Soil Resource Report

*Elevation:* 4,300 to 5,050 feet  
*Mean annual precipitation:* 14 to 18 inches  
*Mean annual air temperature:* 48 to 52 degrees F  
*Frost-free period:* 160 to 180 days  
*Farmland classification:* Prime farmland if irrigated

### Map Unit Composition

*Timpanogos and similar soils:* 95 percent  
*Minor components:* 5 percent  
*Estimates are based on observations, descriptions, and transects of the mapunit.*

### Description of Timpanogos

#### Setting

*Landform:* Lake terraces  
*Landform position (three-dimensional):* Tread  
*Down-slope shape:* Linear  
*Across-slope shape:* Linear  
*Parent material:* Lacustrine deposits

#### Typical profile

*Ap - 0 to 6 inches:* loam  
*A12 - 6 to 15 inches:* loam  
*B2t - 15 to 27 inches:* loam  
*C1ca - 27 to 39 inches:* loam  
*C2 - 39 to 60 inches:* fine sandy loam

#### Properties and qualities

*Slope:* 1 to 3 percent  
*Depth to restrictive feature:* More than 80 inches  
*Natural drainage class:* Well drained  
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high to high (0.60 to 2.00 in/hr)  
*Depth to water table:* More than 80 inches  
*Frequency of flooding:* None  
*Frequency of ponding:* None  
*Calcium carbonate, maximum in profile:* 40 percent  
*Salinity, maximum in profile:* Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)  
*Sodium adsorption ratio, maximum in profile:* 13.0  
*Available water storage in profile:* Moderate (about 8.5 inches)

#### Interpretive groups

*Land capability classification (irrigated):* 2c  
*Land capability classification (nonirrigated):* 3s  
*Hydrologic Soil Group:* B  
*Ecological site:* Upland Loam (Bonneville Big Sagebrush) North (R028AY310UT)  
*Other vegetative classification:* Upland Loam (Mountain Big Sagebrush) (028AY310UT)  
*Hydric soil rating:* No

### Minor Components

#### Somewhat poorly drained soils

*Percent of map unit:* 5 percent  
*Hydric soil rating:* No

## **TbC—Timpanogos loam, 3 to 6 percent slopes**

### **Map Unit Setting**

*National map unit symbol:* j56l  
*Elevation:* 4,300 to 5,050 feet  
*Mean annual precipitation:* 14 to 18 inches  
*Mean annual air temperature:* 48 to 52 degrees F  
*Frost-free period:* 160 to 180 days  
*Farmland classification:* Prime farmland if irrigated

### **Map Unit Composition**

*Timpanogos and similar soils:* 100 percent  
*Estimates are based on observations, descriptions, and transects of the mapunit.*

### **Description of Timpanogos**

#### **Setting**

*Landform:* Lake terraces  
*Landform position (three-dimensional):* Tread  
*Down-slope shape:* Linear  
*Across-slope shape:* Linear  
*Parent material:* Lacustrine deposits

#### **Typical profile**

*Ap - 0 to 6 inches:* loam  
*A12 - 6 to 15 inches:* loam  
*B2t - 15 to 27 inches:* loam  
*C1ca - 27 to 39 inches:* loam  
*C2 - 39 to 60 inches:* fine sandy loam

#### **Properties and qualities**

*Slope:* 3 to 6 percent  
*Depth to restrictive feature:* More than 80 inches  
*Natural drainage class:* Well drained  
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high to high (0.60 to 2.00 in/hr)  
*Depth to water table:* More than 80 inches  
*Frequency of flooding:* None  
*Frequency of ponding:* None  
*Calcium carbonate, maximum in profile:* 40 percent  
*Salinity, maximum in profile:* Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)  
*Sodium adsorption ratio, maximum in profile:* 13.0  
*Available water storage in profile:* Moderate (about 8.5 inches)

#### **Interpretive groups**

*Land capability classification (irrigated):* 2e  
*Land capability classification (nonirrigated):* 3e  
*Hydrologic Soil Group:* B  
*Ecological site:* Upland Loam (Bonneville Big Sagebrush) North (R028AY310UT)

## Custom Soil Resource Report

*Other vegetative classification:* Upland Loam (Mountain Big Sagebrush)  
(028AY310UT)  
*Hydric soil rating:* No

### **W—Water**

#### **Map Unit Setting**

*National map unit symbol:* j56t  
*Elevation:* 4,200 to 5,600 feet  
*Mean annual precipitation:* 14 to 18 inches  
*Mean annual air temperature:* 48 to 52 degrees F  
*Frost-free period:* 160 to 180 days  
*Farmland classification:* Not prime farmland

#### **Map Unit Composition**

*Water:* 100 percent  
*Estimates are based on observations, descriptions, and transects of the mapunit.*

### **WaA—Warm Springs fine sandy loam, 0 to 1 percent slopes**

#### **Map Unit Setting**

*National map unit symbol:* j56w  
*Elevation:* 4,200 to 4,400 feet  
*Mean annual precipitation:* 14 to 18 inches  
*Mean annual air temperature:* 48 to 52 degrees F  
*Frost-free period:* 160 to 180 days  
*Farmland classification:* Prime farmland if irrigated and drained

#### **Map Unit Composition**

*Warm springs and similar soils:* 95 percent  
*Minor components:* 5 percent  
*Estimates are based on observations, descriptions, and transects of the mapunit.*

#### **Description of Warm Springs**

##### **Setting**

*Landform:* Lake terraces  
*Landform position (three-dimensional):* Tread  
*Down-slope shape:* Linear  
*Across-slope shape:* Linear  
*Parent material:* Lacustrine deposits

##### **Typical profile**

*H1 - 0 to 8 inches:* fine sandy loam  
*H2 - 8 to 15 inches:* fine sandy loam  
*H3 - 15 to 24 inches:* fine sandy loam  
*H4 - 24 to 37 inches:* fine sandy loam  
*H5 - 37 to 60 inches:* loamy fine sand

**Properties and qualities**

*Slope:* 0 to 1 percent  
*Depth to restrictive feature:* More than 80 inches  
*Natural drainage class:* Somewhat poorly drained  
*Runoff class:* Low  
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high to high (0.60 to 2.00 in/hr)  
*Depth to water table:* About 36 to 48 inches  
*Frequency of flooding:* Rare  
*Frequency of ponding:* None  
*Calcium carbonate, maximum in profile:* 30 percent  
*Salinity, maximum in profile:* Very slightly saline to strongly saline (2.0 to 16.0 mmhos/cm)  
*Sodium adsorption ratio, maximum in profile:* 30.0  
*Available water storage in profile:* Low (about 5.3 inches)

**Interpretive groups**

*Land capability classification (irrigated):* 2w  
*Land capability classification (nonirrigated):* 7w  
*Hydrologic Soil Group:* B  
*Ecological site:* Alkali Bottom (Alkali Sacaton) (R028AY001UT)  
*Hydric soil rating:* No

**Minor Components**

**Warm springs, shallow water table, uncorrelated**

*Percent of map unit:* 5 percent  
*Landform:* Lake terraces  
*Landform position (three-dimensional):* Tread  
*Down-slope shape:* Linear  
*Across-slope shape:* Linear  
*Ecological site:* Wet Saline Meadow (Saltgrass) (R028AY024UT)  
*Hydric soil rating:* Yes

**WaB—Warm Springs fine sandy loam, 1 to 3 percent slopes**

**Map Unit Setting**

*National map unit symbol:* j56x  
*Elevation:* 4,200 to 4,400 feet  
*Mean annual precipitation:* 14 to 18 inches  
*Mean annual air temperature:* 48 to 52 degrees F  
*Frost-free period:* 160 to 180 days  
*Farmland classification:* Prime farmland if irrigated and drained

**Map Unit Composition**

*Warm springs and similar soils:* 95 percent  
*Minor components:* 5 percent  
*Estimates are based on observations, descriptions, and transects of the mapunit.*



## Description of Warm Springs

### Setting

*Landform:* Lake terraces  
*Landform position (three-dimensional):* Tread  
*Down-slope shape:* Linear  
*Across-slope shape:* Linear  
*Parent material:* Lacustrine deposits

### Typical profile

*H1 - 0 to 8 inches:* fine sandy loam  
*H2 - 8 to 15 inches:* fine sandy loam  
*H3 - 15 to 24 inches:* fine sandy loam  
*H4 - 24 to 37 inches:* fine sandy loam  
*H5 - 37 to 60 inches:* loamy fine sand

### Properties and qualities

*Slope:* 1 to 3 percent  
*Depth to restrictive feature:* More than 80 inches  
*Natural drainage class:* Somewhat poorly drained  
*Runoff class:* Low  
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high to high (0.60 to 2.00 in/hr)  
*Depth to water table:* About 36 to 48 inches  
*Frequency of flooding:* Rare  
*Frequency of ponding:* None  
*Calcium carbonate, maximum in profile:* 30 percent  
*Salinity, maximum in profile:* Very slightly saline to strongly saline (2.0 to 16.0 mmhos/cm)  
*Sodium adsorption ratio, maximum in profile:* 30.0  
*Available water storage in profile:* Low (about 5.3 inches)

### Interpretive groups

*Land capability classification (irrigated):* 2w  
*Land capability classification (nonirrigated):* 7w  
*Hydrologic Soil Group:* B  
*Ecological site:* Alkali Bottom (Alkali Sacaton) (R028AY001UT)  
*Hydric soil rating:* No

## Minor Components

### Warm springs, shallow water table, uncorrelated

*Percent of map unit:* 5 percent  
*Landform:* Lake terraces  
*Landform position (three-dimensional):* Tread  
*Down-slope shape:* Linear  
*Across-slope shape:* Linear  
*Ecological site:* Wet Saline Meadow (Saltgrass) (R028AY024UT)  
*Hydric soil rating:* Yes

**WgA—Warm Springs fine sandy loam, saline, sodic, 0 to 1 percent slopes**

**Map Unit Setting**

*National map unit symbol:* j56z  
*Elevation:* 4,200 to 4,400 feet  
*Mean annual precipitation:* 14 to 18 inches  
*Mean annual air temperature:* 48 to 52 degrees F  
*Frost-free period:* 160 to 180 days  
*Farmland classification:* Not prime farmland

**Map Unit Composition**

*Warm springs, strongly alkali, and similar soils:* 95 percent  
*Minor components:* 5 percent  
*Estimates are based on observations, descriptions, and transects of the mapunit.*

**Description of Warm Springs, Strongly Alkali**

**Setting**

*Landform:* Lake terraces  
*Landform position (three-dimensional):* Tread  
*Down-slope shape:* Linear  
*Across-slope shape:* Linear  
*Parent material:* Lacustrine deposits

**Typical profile**

*H1 - 0 to 8 inches:* fine sandy loam  
*H2 - 8 to 15 inches:* fine sandy loam  
*H3 - 15 to 24 inches:* fine sandy loam  
*H4 - 24 to 37 inches:* fine sandy loam  
*H5 - 37 to 60 inches:* loamy fine sand

**Properties and qualities**

*Slope:* 0 to 1 percent  
*Depth to restrictive feature:* More than 80 inches  
*Natural drainage class:* Somewhat poorly drained  
*Runoff class:* Low  
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high to high (0.60 to 2.00 in/hr)  
*Depth to water table:* About 24 to 42 inches  
*Frequency of flooding:* Occasional  
*Frequency of ponding:* None  
*Calcium carbonate, maximum in profile:* 30 percent  
*Salinity, maximum in profile:* Strongly saline (16.0 to 32.0 mmhos/cm)  
*Sodium adsorption ratio, maximum in profile:* 60.0  
*Available water storage in profile:* Low (about 5.3 inches)

**Interpretive groups**

*Land capability classification (irrigated):* 4w  
*Land capability classification (nonirrigated):* 7w

## Custom Soil Resource Report

*Hydrologic Soil Group:* C

*Ecological site:* Alkali Bottom (Alkali Sacaton) (R028AY001UT)

*Hydric soil rating:* No

### Minor Components

#### **Warm springs, shallow water table, uncorrelated**

*Percent of map unit:* 5 percent

*Landform:* Lake terraces

*Landform position (three-dimensional):* Tread

*Down-slope shape:* Linear

*Across-slope shape:* Linear

*Ecological site:* Wet Saline Meadow (Saltgrass) (R028AY024UT)

*Hydric soil rating:* Yes

## **WhA—Warm Springs fine sandy loam, saline, sodic, 0 to 1 percent slopes, channeled**

### Map Unit Setting

*National map unit symbol:* j570

*Elevation:* 4,200 to 4,400 feet

*Mean annual precipitation:* 14 to 18 inches

*Mean annual air temperature:* 48 to 52 degrees F

*Frost-free period:* 160 to 180 days

*Farmland classification:* Not prime farmland

### Map Unit Composition

*Warm springs, strongly alkali, and similar soils:* 95 percent

*Minor components:* 5 percent

*Estimates are based on observations, descriptions, and transects of the mapunit.*

### Description of Warm Springs, Strongly Alkali

#### **Setting**

*Landform:* Lake plains, lake terraces

*Landform position (three-dimensional):* Tread, talf, rise

*Down-slope shape:* Linear

*Across-slope shape:* Linear

*Parent material:* Lacustrine deposits

#### **Typical profile**

*H1 - 0 to 8 inches:* fine sandy loam

*H2 - 8 to 15 inches:* fine sandy loam

*H3 - 15 to 24 inches:* fine sandy loam

*H4 - 24 to 37 inches:* fine sandy loam

*H5 - 37 to 60 inches:* loamy fine sand

#### **Properties and qualities**

*Slope:* 0 to 1 percent

*Depth to restrictive feature:* More than 80 inches

*Natural drainage class:* Somewhat poorly drained

## Custom Soil Resource Report

*Runoff class:* Low

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high to high (0.60 to 2.00 in/hr)

*Depth to water table:* About 24 to 42 inches

*Frequency of flooding:* Occasional

*Frequency of ponding:* None

*Calcium carbonate, maximum in profile:* 30 percent

*Salinity, maximum in profile:* Strongly saline (16.0 to 32.0 mmhos/cm)

*Sodium adsorption ratio, maximum in profile:* 60.0

*Available water storage in profile:* Low (about 5.3 inches)

### Interpretive groups

*Land capability classification (irrigated):* None specified

*Land capability classification (nonirrigated):* 7w

*Hydrologic Soil Group:* C

*Ecological site:* Alkali Bottom (Alkali Sacaton) (R028AY001UT)

*Hydric soil rating:* No

### Minor Components

#### Warm springs, shallow water table, uncorrelated

*Percent of map unit:* 5 percent

*Landform:* Lake plains, lake terraces

*Landform position (three-dimensional):* Tread, talf, dip

*Down-slope shape:* Linear

*Across-slope shape:* Linear

*Ecological site:* Wet Saline Meadow (Saltgrass) (R028AY024UT)

*Hydric soil rating:* Yes

## WIA—Warm Springs fine sandy loam, shallow water table, 0 to 1 percent slopes

### Map Unit Setting

*National map unit symbol:* j571

*Elevation:* 4,200 to 4,400 feet

*Mean annual precipitation:* 14 to 18 inches

*Mean annual air temperature:* 48 to 52 degrees F

*Frost-free period:* 160 to 180 days

*Farmland classification:* Not prime farmland

### Map Unit Composition

*Warm springs, shallow water table, and similar soils:* 100 percent

*Estimates are based on observations, descriptions, and transects of the mapunit.*

### Description of Warm Springs, Shallow Water Table

#### Setting

*Landform:* Lake plains

*Landform position (three-dimensional):* Talf, dip

*Down-slope shape:* Linear



## Custom Soil Resource Report

*Across-slope shape:* Linear  
*Parent material:* Lacustrine deposits

### Typical profile

*H1 - 0 to 8 inches:* fine sandy loam  
*H2 - 8 to 15 inches:* fine sandy loam  
*H3 - 15 to 24 inches:* fine sandy loam  
*H4 - 24 to 37 inches:* fine sandy loam  
*H5 - 37 to 60 inches:* loamy fine sand

### Properties and qualities

*Slope:* 0 to 1 percent  
*Depth to restrictive feature:* More than 80 inches  
*Natural drainage class:* Somewhat poorly drained  
*Runoff class:* Very high  
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high to high (0.60 to 2.00 in/hr)  
*Depth to water table:* About 0 to 24 inches  
*Frequency of flooding:* Frequent  
*Frequency of ponding:* None  
*Calcium carbonate, maximum in profile:* 30 percent  
*Salinity, maximum in profile:* Very slightly saline to strongly saline (2.0 to 16.0 mmhos/cm)  
*Sodium adsorption ratio, maximum in profile:* 30.0  
*Available water storage in profile:* Low (about 5.3 inches)

### Interpretive groups

*Land capability classification (irrigated):* None specified  
*Land capability classification (nonirrigated):* 7w  
*Hydrologic Soil Group:* B/D  
*Ecological site:* Wet Saline Meadow (Saltgrass) (R028AY024UT)  
*Hydric soil rating:* Yes

## Ws—Woods Cross silty clay loam, 0 to 3 percent slopes

### Map Unit Setting

*National map unit symbol:* j573  
*Elevation:* 4,250 to 4,500 feet  
*Mean annual precipitation:* 14 to 18 inches  
*Mean annual air temperature:* 48 to 52 degrees F  
*Frost-free period:* 160 to 180 days  
*Farmland classification:* Farmland of statewide importance

### Map Unit Composition

*Woods cross and similar soils:* 100 percent  
*Estimates are based on observations, descriptions, and transects of the mapunit.*

### Description of Woods Cross

#### Setting

*Landform:* Flood plains  
*Landform position (three-dimensional):* Talf, dip

## Custom Soil Resource Report

*Down-slope shape:* Linear  
*Across-slope shape:* Concave  
*Parent material:* Alluvium

### Typical profile

*Ap - 0 to 6 inches:* silty clay loam  
*A12 - 6 to 37 inches:* silty clay loam  
*Cg - 37 to 72 inches:* silty clay

### Properties and qualities

*Slope:* 0 to 3 percent  
*Depth to restrictive feature:* More than 80 inches  
*Natural drainage class:* Poorly drained  
*Runoff class:* Very high  
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately low to moderately high (0.06 to 0.20 in/hr)  
*Depth to water table:* About 0 to 18 inches  
*Frequency of flooding:* Occasional  
*Frequency of ponding:* None  
*Calcium carbonate, maximum in profile:* 3 percent  
*Salinity, maximum in profile:* Very slightly saline to moderately saline (2.0 to 8.0 mmhos/cm)  
*Available water storage in profile:* High (about 9.6 inches)

### Interpretive groups

*Land capability classification (irrigated):* 3w  
*Land capability classification (nonirrigated):* 7w  
*Hydrologic Soil Group:* C/D  
*Ecological site:* Wet Saline Meadow (Saltgrass) (R028AY024UT)  
*Hydric soil rating:* Yes

## Wt—Woods Cross silty clay loam, drained, 0 to 3 percent slopes

### Map Unit Setting

*National map unit symbol:* j574  
*Elevation:* 4,250 to 4,500 feet  
*Mean annual precipitation:* 14 to 18 inches  
*Mean annual air temperature:* 48 to 52 degrees F  
*Frost-free period:* 160 to 180 days  
*Farmland classification:* Farmland of statewide importance

### Map Unit Composition

*Woods cross, drained, and similar soils:* 95 percent  
*Minor components:* 5 percent  
*Estimates are based on observations, descriptions, and transects of the mapunit.*

### Description of Woods Cross, Drained

#### Setting

*Landform:* Flood plains  
*Landform position (three-dimensional):* Talf, dip  
*Down-slope shape:* Linear

## Custom Soil Resource Report

*Across-slope shape:* Concave

*Parent material:* Alluvium

### Typical profile

*Ap - 0 to 6 inches:* silty clay loam

*A12 - 6 to 37 inches:* silty clay loam

*Cg - 37 to 72 inches:* silty clay

### Properties and qualities

*Slope:* 0 to 3 percent

*Depth to restrictive feature:* More than 80 inches

*Natural drainage class:* Poorly drained

*Runoff class:* Medium

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately low to moderately high (0.06 to 0.20 in/hr)

*Depth to water table:* About 30 to 48 inches

*Frequency of flooding:* Occasional

*Frequency of ponding:* None

*Calcium carbonate, maximum in profile:* 3 percent

*Salinity, maximum in profile:* Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)

*Available water storage in profile:* High (about 10.2 inches)

### Interpretive groups

*Land capability classification (irrigated):* 3w

*Land capability classification (nonirrigated):* 7w

*Hydrologic Soil Group:* D

*Hydric soil rating:* Yes

### Minor Components

#### Poorly drained soils, hydric, not correlated

*Percent of map unit:* 5 percent

*Landform:* Flood plains

*Landform position (three-dimensional):* Talf, dip

*Down-slope shape:* Linear

*Across-slope shape:* Concave

*Hydric soil rating:* Yes

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## **Appendix H**

### **Field Data Points**

## Appendix H: Field Data Points

**Table H-1. Field Data Point Summary**

Note: Some data points appear on more than one map sheet. This summary lists the first map sheet on which a point appears.

Data Point	Hydrophytic Vegetation?	Hydric Soils?	Wetland Hydrology?	Wetland Determination?	Map Sheet Number
MP-05252017-OUT-1	N	-	-	N	1
MP-05252017-1-IN	Y	Y	Y	Y	1
MP-05242017-1-OUT	Y	N	N	N	1
MP-05242017-1-IN	Y	Y	Y	Y	1
MP-05232017-3-OUT	N	-	-	N	1
MP-05232017-3-IN	Y	Y	Y	Y	1
MP-05232017-2-OUT	Y	N	N	N	1
MP-05232017-2-IN	Y	Y	Y	Y	1
MP-05222017-1-OUT	N	N	N	N	1
MP-05222017-1-IN	Y	Y	Y	Y	1
MP-05182017-2-OUT	N	-	-	N	1
MP-05182017-2-IN	Y	Y	Y	Y	1
MP-05182017-1-OUT-2	Y	N	Y	N	1
MP-05182017-1-OUT	Y	N	Y	N	1
26-W-201305071545	N	N	N	N	1
26-W-201305071206	N	Y	N	N	1
26-W-201207231255	N	N	N	N	1
26-W-201207231106	Y	Y	Y	Y	1
26-W-201207231000	N	N	N	N	1
26-W-201207201433	Y	Y	Y	Y	1
26-W-201207180919	Y	N	N	N	1
26-W-201207171213	Y	N	Y	N	1
26-W-201206261208	N	N	N	N	1
26-N-201305071622	N	N	N	N	1
26-N-201305071413	Y	Y	Y	Y	1
26-N-201305071226	Y	N	N	N	1
26-N-201305071141	Y	Y	Y	Y	1
26-N-201207231342	Y	N	N	N	1

**Table H-1. Field Data Point Summary**

Note: Some data points appear on more than one map sheet. This summary lists the first map sheet on which a point appears.

<b>Data Point</b>	<b>Hydrophytic Vegetation?</b>	<b>Hydric Soils?</b>	<b>Wetland Hydrology?</b>	<b>Wetland Determination?</b>	<b>Map Sheet Number</b>
26-N-201207231340	Y	N	N	N	1
26-N-201207231136	Y	Y	N	Y	1
26-N-201207231012	Y	Y	Y	Y	1
26-N-201207180948	Y	Y	Y	Y	1
26-N-201207171300	Y	N	N	N	1
26-N-201207161330	Y	Y	Y	Y	1
26-N-201207161205	Y	N	N	N	1
26-N-201206261002	N	N	Y	N	1
25-W-201207191315	Y	Y	Y	Y	1
25-N-201207241320	N	N	N	N	1
25-N-201207240940	N	N	N	N	1
25-N-201207240910	N	N	N	N	1
25-N-201207240900	Y	Y	Y	Y	1
25-N-201207231530	Y	N	N	N	1
25-N-201207231447	N	Y	N	N	1
25-N-201207231153	N	N	N	N	1
25-N-201206261133	Y	Y	Y	Y	1
25-N-201206251405	Y	Y	Y	Y	1
MP-05232017-1-OUT	N	-	-	N	3
MP-05232017-1-IN	Y	Y	Y	Y	3
26-W-201207161128	Y	N	N	N	3
26-N-201207201043	N	N	N	N	3
25-W-201304301345	N	N	N	N	3
25-W-201209261345	N	N	N	N	3
25-W-201207231406	Y	Y	Y	Y	3
25-W-201206260906	Y	Y	Y	Y	3
25-W-201206260847	N	N	N	N	3
25-W-201206251337	N	N	N	N	3
25-N-201305071413	Y	Y	Y	Y	3
25-N-201304301402	Y	Y	Y	Y	3
25-N-201209261405	Y	Y	Y	Y	3



**Table H-1. Field Data Point Summary**

Note: Some data points appear on more than one map sheet. This summary lists the first map sheet on which a point appears.

Data Point	Hydrophytic Vegetation?	Hydric Soils?	Wetland Hydrology?	Wetland Determination?	Map Sheet Number
25-N-201207181100	Y	Y	Y	Y	3
25-N-201206261055	Y	N	N	N	3
25-N-201206260825	Y	N	Y	N	3
25-N-201206260804	N	N	N	N	3
25-N-201206251350	N	N	N	N	3
MP-09282016-4-OUT	N	-	-	N	4
MP-09282016-4-IN	Y	Y	Y	Y	4
MP-09282016-3-OUT	N	-	-	N	4
MP-09282016-3-IN	Y	Y	Y	Y	4
MP-09282016-2-OUT	N	-	-	N	4
MP-09282016-2-IN	Y	Y	N	Y	4
26-W-201305071506	N	N	N	N	4
25-W-201207241134	N	N	N	N	4
25-W-201207240840	Y	Y	Y	Y	4
25-W-201207231233	Y	Y	Y	Y	4
25-W-201207231020	N	N	N	N	4
25-W-201206261125	N	N	N	N	4
25-W-201206261100	Y	Y	Y	Y	4
25-W-201206260932	N	N	N	N	4
25-W-201206251508	Y	Y	Y	Y	4
25-W-201206251221	N	N	N	N	4
25-N-201207241313	N	N	N	N	4
25-N-201207241256	N	N	N	N	4
25-N-201207241243	N	N	N	N	4
25-N-201206251320	N	N	N	N	4
24-W-201306261245	N	N	N	N	4
24-N-201206251405	N	N	N	N	4
24-N-201206251155	N	N	N	N	4
MP-09272016-02-OUT	N	-	-	N	5
MP-09272016-02-IN	Y	Y	Y	Y	5
24-N-201306261258	N	N	N	N	5

**Table H-1. Field Data Point Summary**

Note: Some data points appear on more than one map sheet. This summary lists the first map sheet on which a point appears.

Data Point	Hydrophytic Vegetation?	Hydric Soils?	Wetland Hydrology?	Wetland Determination?	Map Sheet Number
MP-09272916-01-OUT	N	-	-	N	6
MP-09272016-01-IN	Y	Y	Y	Y	6
AC-09272016-3-OUT	N	-	-	N	6
AC-09272016-3-IN	Y	Y	N	Y	6
AC-09272016-1-OUT	N	N	N	N	6
AC-09272016-1-IN	Y	Y	Y	Y	6
24-W-201206251130	Y	N	N	N	6
24-N-201207191055	Y	N	N	N	6
24-N-201206251423	Y	Y	N	N	6
24-N-201206251140	Y	N	Y	Y	6
24-N-201206251115	Y	Y	Y	Y	6
22-W-201209261442	Y	Y	Y	Y	6
22-W-201206251045	N	N	N	N	7
22-W-201206221256	Y	Y	Y	Y	7
22-W-201206211541	Y	Y	Y	Y	7
22-W-201206211417	Y	Y	Y	Y	7
22-W-201206201455	Y	Y	Y	Y	7
22-N-201209261345	N	N	N	N	7
22-N-201209261055	Y	N	N	N	7
22-N-201207231457	Y	Y	Y	Y	7
22-N-201207191547	N	N	N	N	7
22-N-201207191434	N	N	N	N	7
22-N-201207191232	Y	N	N	N	7
22-N-201206251252	Y	N	N	N	7
22-N-201206221208	N	N	Y	N	7
22-N-201206221145	N	N	N	N	7
22-N-201206211252	Y	N	Y	N	7
22-N-201206211210	N	N	N	N	7
22-N-201206201553	N	N	N	N	7
20-W-201206181130	Y	Y	Y	Y	8
20-W-201206151345	Y	Y	Y	Y	8

**Table H-1. Field Data Point Summary**

Note: Some data points appear on more than one map sheet. This summary lists the first map sheet on which a point appears.

Data Point	Hydrophytic Vegetation?	Hydric Soils?	Wetland Hydrology?	Wetland Determination?	Map Sheet Number
20-W-201206141430	Y	Y	Y	Y	8
20-W-201206141030	Y	Y	Y	Y	8
20-N-201206181044	N	N	Y	N	8
20-N-201206151308	N	N	N	N	8
20-N-201206151004	Y	N	N	N	8
20-N-201206150915	N	Y	N	N	8
20-N-201206141245	N	N	N	N	8
20-N-201206141215	Y	N	N	N	8
20-N-201206141212	Y	N	N	N	8
20-W-201206141330	Y	Y	Y	Y	9
20-W-201206131412	Y	Y	Y	Y	9
20-W-201206131049	Y	Y	Y	Y	9
20-N-201206180952	N	N	Y	N	9
20-N-201206151415	N	N	N	N	9
20-N-201206141403	N	N	N	N	9
20-N-201206141342	Y	N	Y	N	9
20-N-201206141120	N	Y	N	N	9
20-N-201206131126	N	N	N	N	9
20-N-201206130953	Y	N	Y	N	9
20-N-201206130903	Y	N	N	N	9
MPAC-09262016-03-OUT	N	-	-	N	10
MPAC-09262016-03-IN	Y	Y	N	Y	10
MPAC-09262016-02-OUT	N	-	-	N	11
MPAC-09262016-02-IN	Y	Y	Y	Y	11
MPAC-09262016-01-OUT	N	-	-	N	11
MPAC-09262016-01-IN	Y	Y	-	Y	11
MPAC-09222016-03-OUT	N	-	N	N	11
MP-09222016-03-IN	Y	Y	Y	Y	11
18-W-201306261050	Y	Y	Y	Y	11
18-N-201206120958	N	Y	N	N	11
18-N-201206111430	Y	N	N	N	11

**Table H-1. Field Data Point Summary**

Note: Some data points appear on more than one map sheet. This summary lists the first map sheet on which a point appears.

Data Point	Hydrophytic Vegetation?	Hydric Soils?	Wetland Hydrology?	Wetland Determination?	Map Sheet Number
18-N-201206111230	Y	N	N	N	11
MPAC-09222016-02-OUT	N	Y	Y	N	12
MPAC-09222016-02-IN	Y	Y	Y	Y	12
MPAC-09222016-01-OUT	N	Y	Y	N	12
MPAC-09222016-01-IN	Y	Y	Y	Y	12
MPAC-09212016-05-OUT	N	Y	N	N	12
MPAC-09212016-05-IN	Y	Y	N	Y	12
MPAC-09212016-03-OUT	N	N	Y	N	12
MPAC-09212016-03-IN	Y	Y	Y	Y	12
MPAC-09212016-02-OUT	N	Y	Y	N	12
MPAC-09212016-02-IN	Y	Y	Y	Y	12
MPAC-09212016-01-OUT	N	-	-	N	12
MPAC-09212016-01-IN	Y	Y	Y	Y	12
18-W-201206121036	Y	N	Y	Y	12
18-W-201206120916	Y	Y	Y	Y	12
18-W-201206111549	Y	Y	Y	Y	12
18-N-201306261105	N	N	N	N	12
18-N-201206111156	Y	N	N	N	12
17-W-201206071352	Y	Y	Y	Y	12
17-W-201206071133	Y	Y	Y	Y	12
17-W-201206071044	Y	Y	Y	Y	12
17-W-201206070845	Y	Y	Y	Y	12
17-N-201304291156	N	-	N	N	12
17-N-201304291113	N	N	N	N	12
17-N-201206111014	Y	Y	N	N	12
17-N-201206071416	N	N	N	N	12
17-N-201206071357	N	N	N	N	12
17-N-201206071340	N	N	N	N	12
17-N-201206071249	Y	N	Y	N	12
17-N-201206071145	N	N	N	N	12
17-N-201206071056	N	Y	N	N	12



**Table H-1. Field Data Point Summary**

Note: Some data points appear on more than one map sheet. This summary lists the first map sheet on which a point appears.

Data Point	Hydrophytic Vegetation?	Hydric Soils?	Wetland Hydrology?	Wetland Determination?	Map Sheet Number
17-N-201206071020	Y	N	N	N	12
17-N-201206070931	Y	N	N	N	12
17-N-201206070900	N	N	N	N	13
17-W-201206071406	Y	Y	Y	Y	14
17-W-201206071333	Y	Y	Y	Y	14
17-W-201206070804	Y	Y	Y	Y	14
16-W-201206080916	Y	Y	Y	Y	14
16-N-201206081009	N	N	N	N	14
16-N-201206071353	Y	N	N	N	14
16-N-201206071150	Y	N	N	N	14
16-N-201206061440	Y	Y	N	N	14
16-N-201206061047	N	Y	N	N	14
16-W-201206070953	Y	Y	Y	Y	15
16-W-201206060831	Y	Y	Y	Y	15
16-N-201206071040	Y	N	N	N	15
16-N-201206070923	Y	N	N	N	15
16-N-201206070830	N	N	N	N	15
16-N-201206061145	N	N	N	N	15
16-N-201206061015	N	N	N	N	15
16-N-201206060855	N	N	N	N	15
16-W-201206061331	Y	Y	Y	Y	16
16-W-201206061140	Y	Y	Y	Y	16
16-N-201206060927	N	Y	Y	N	16
15-W-201207181503	Y	Y	N	Y	16
15-W-201207181433	Y	Y	Y	Y	16
15-W-201206121227	Y	Y	Y	Y	16
15-W-201206071630	Y	Y	Y	Y	16
15-W-201206061059	Y	Y	Y	Y	16
15-N-201304261153	Y	N	N	N	16
15-N-201207181516	N	N	N	N	16
15-N-201207181342	Y	N	Y	N	16

**Table H-1. Field Data Point Summary**

Note: Some data points appear on more than one map sheet. This summary lists the first map sheet on which a point appears.

<b>Data Point</b>	<b>Hydrophytic Vegetation?</b>	<b>Hydric Soils?</b>	<b>Wetland Hydrology?</b>	<b>Wetland Determination?</b>	<b>Map Sheet Number</b>
15-N-201206081048	Y	N	N	N	16
15-N-201206080924	Y	N	N	N	16
15-N-201206071555	N	Y	N	N	16
15-N-201206061329	Y	N	N	N	16
15-W-201304261140	Y	Y	Y	Y	17
15-W-201206111604	Y	Y	Y	Y	17
15-W-201206061451	Y	Y	Y	Y	17
15-W-201206051315	Y	Y	Y	Y	17
15-W-201206050923	Y	Y	Y	Y	17
15-N-201206121320	Y	N	N	N	17
15-N-201206111655	Y	N	N	N	17
15-N-201206061017	N	N	N	N	17
MP-09202016-1-OUT	N	N	N	N	18
MP-09202016-1-IN	Y	Y	N	Y	18
MP-09192016-02-OUT	N	N	N	N	18
MP-09192016-01-IN	Y	Y	N	Y	18
DGAC-09162016-5-OUT	N	N	N	N	18
DGAC-09162016-5-IN	Y	Y	N	Y	18
DGAC-09162016-3-OUT	N	-	-	N	18
DGAC-09162016-3-IN	Y	Y	Y	Y	18
DGAC-09162016-2-OUT	N	N	N	N	18
DGAC-09162016-2-IN	Y	Y	N	Y	18
DGAC-09162016-1-OUT	N	N	Y	N	18
DGAC-09162016-1-IN	Y	Y	Y	Y	18
DGAC-09152016-5-OUT	Y	N	Y	N	18
DGAC-09152016-5-IN	Y	Y	Y	Y	18
DGAC-09152016-4-OUT	N	N	N	N	18
DGAC-09152016-4-IN	Y	Y	Y	Y	18
DGAC-09152016-3-OUT	Y	N	Y	N	18
DGAC-09152016-2-OUT	N	-	-	N	18
DGAC-09152016-2-IN	N	N	N	N	18

**Table H-1. Field Data Point Summary**

Note: Some data points appear on more than one map sheet. This summary lists the first map sheet on which a point appears.

Data Point	Hydrophytic Vegetation?	Hydric Soils?	Wetland Hydrology?	Wetland Determination?	Map Sheet Number
DGAC-09152016-1-OUT	Y	N	N	N	18
DGAC-0915-1-OUT-2	Y	N	Y	N	18
AC-0920202016-1-OUT	N	Y	N	N	18
AC-09202016-1-IN	Y	Y	N	Y	18
AC06012017-2-in	Y	Y	Y	Y	18
AC06012017-1-out	N	N	N	N	18
15-W-201206111505	Y	Y	Y	Y	18
15-W-201206111217	Y	Y	Y	Y	18
15-N-201206111445	N	N	N	N	18
15-N-201206111315	N	Y	N	N	18
15-N-201206051409	N	N	N	N	18
15-N-201206051010	N	N	N	N	18
14-W-201206041325	Y	Y	Y	Y	18
14-N-201206041535	Y	N	N	N	18
MNAC-09012016-2-OUT	Y	N	Y	N	19
MNAC-09012016-2-IN	Y	Y	Y	Y	19
MNAC-09012016-1-OUT-2	Y	N	N	N	19
MNAC-09012016-1-OUT	Y	N	N	N	19
MNAC-09012016-1-IN-2	Y	N	Y	Y	19
MNAC-09012016-1-IN	Y	N	Y	Y	19
MNAC-08312016-5-IN	Y	Y	Y	Y	19
MNAC-08312016-2-OUT	N	N	N	N	19
MNAC-08312016-2-IN-2	Y	Y	Y	Y	19
MNAC-08312016-2-IN	Y	Y	Y	Y	19
MNAC-08302016-2-OUT	N	N	N	N	19
MNAC-08302016-2-IN-2	Y	N	Y	Y	19
MNAC-08302016-2-IN	Y	N	Y	Y	19
DGAC-09142016-1-OUT-2	Y	N	N	N	19
DGAC-09142016-1-OUT	N	N	N	N	19
DGAC-09142016-1-IN-2	Y	Y	Y	Y	19
DGAC-09142016-1-IN	Y	Y	Y	Y	19

**Table H-1. Field Data Point Summary**

Note: Some data points appear on more than one map sheet. This summary lists the first map sheet on which a point appears.

Data Point	Hydrophytic Vegetation?	Hydric Soils?	Wetland Hydrology?	Wetland Determination?	Map Sheet Number
DGAC-09132016-3-OUT	Y	N	Y	N	19
DGAC-09132016-3-IN	Y	Y	Y	Y	19
DGAC-09122016-3-OUT	N	-	-	N	19
DGAC-09122016-3-IN	Y	N	N	Y	19
DGAC-09122016-2-OUT	N	-	-	N	19
DGAC-09122016-2-IN	Y	Y	N	Y	19
DGAC-09122016-1-OUT	N	-	-	N	19
MP-05302017-1-OUT	Y	N	N	N	21
MP-05302017-1-IN	Y	Y	Y	Y	21
JWDG-14-W-95-OUT	N	-	-	N	21
JWDG-14-W-95-IN	Y	Y	Y	Y	21
14-W-201209211105	Y	Y	Y	Y	21
14-W-201208131242	Y	N	Y	Y	21
14-W-201205031421	Y	Y	Y	Y	21
14-W-201205021342	Y	N	Y	Y	21
14-N-201208131317	Y	N	N	N	21
14-N-201208091228	Y	N	Y	N	21
14-N-201206071323	Y	N	N	N	21
14-N-201206071046	Y	N	N	N	21
14-N-201206071010	Y	N	N	N	21
14-N-201205101230	N	N	N	N	21
14-N-201205101204	N	Y	N	N	21
14-N-201205101115	Y	N	Y	N	21
14-N-201205101023	Y	N	Y	N	21
MPMNAC-08302016-1-OUT	N	N	N	N	22
MPMNAC-08302016-1-IN	Y	N	Y	Y	22
MP-09142016-1-IN	Y	Y	Y	Y	22
MP-09142016-1-IN	N	N	N	N	22
MP-05122017-1-OUT	N	-	-	N	22
MP-05122017-1-IN-3	Y	Y	Y	Y	22
MNAC-09022016-2-OUT	N	Y	Y	N	22



**Table H-1. Field Data Point Summary**

Note: Some data points appear on more than one map sheet. This summary lists the first map sheet on which a point appears.

Data Point	Hydrophytic Vegetation?	Hydric Soils?	Wetland Hydrology?	Wetland Determination?	Map Sheet Number
MNAC-09022016-2-IN	Y	Y	Y	Y	22
MNAC-09022016-1-OUT	Y	Y	N	N	22
MNAC-09022016-1-IN	Y	Y	Y	Y	22
DGAC-09132016-2-OUT	N	-	-	N	22
DGAC--09132016-2-IN-2	Y	Y	Y	Y	22
DGAC--09132016-2-IN	Y	Y	Y	Y	22
DGAC-09132016-1-OUT	Y	N	N	N	22
DGAC-09132016-1-IN	Y	N	Y	Y	22
DGAC-09122016-5-OUT	N	N	N	N	22
DGAC-09122016-5-IN	Y	Y	Y	Y	22
DGAC-09122016-4-OUT	N	-	N	N	22
DGAC-09122016-4-IN-2	Y	Y	Y	Y	22
DGAC-09122016-4-IN	Y	Y	Y	Y	22
14-W-201206051026	Y	Y	Y	Y	22
14-W-201205021532	Y	N	Y	Y	22
14-W-201205021436	Y	N	Y	Y	22
14-N-201208151050	Y	N	Y	N	22
14-N-201206081255	Y	N	N	N	22
14-N-201206081224	Y	N	Y	N	22
14-N-201206071150	Y	N	N	N	22
14-N-201206070850	Y	N	N	N	22
14-N-201206051008	N	N	N	N	22
14-N-201206041610	Y	N	N	N	22
14-N-201205090749	Y	N	N	N	22
12-W-201304241529	Y	Y	Y	Y	22
12-W-201208031420	Y	Y	Y	Y	22
12-W-201208011350	Y	Y	Y	Y	22
12-W-201208011308	Y	Y	Y	Y	22
12-W-201207311255	Y	Y	Y	Y	22
12-N-201304241549	N	N	N	N	22
12-N-201208061400	Y	N	Y	N	22

**Table H-1. Field Data Point Summary**

Note: Some data points appear on more than one map sheet. This summary lists the first map sheet on which a point appears.

Data Point	Hydrophytic Vegetation?	Hydric Soils?	Wetland Hydrology?	Wetland Determination?	Map Sheet Number
12-N-201208031401	Y	N	N	N	22
12-N-201208031332	Y	N	N	N	22
12-N-201208011129	N	N	N	N	22
MPDG-07292016-2-OUT	N	Y	N	N	23
MPDG-07292016-2-IN	Y	Y	Y	Y	23
MP-08252016-1-IN	Y	Y	Y	Y	23
ACMP-08222016-1-IN	Y	Y	Y	Y	23
ACJW-08262016-2-OUT	N	N	N	N	23
ACJW-08262016-2-IN	Y	Y	Y	Y	23
ACJW-08262016-1-OUT	N	N	N	N	23
ACJW-08262016-1-IN	Y	N	Y	Y	23
ACJW-08222016-1-OUT-3	N	N	N	N	23
ACJW-08222016-1-OUT-2	Y	N	N	N	23
ACJW-08222016-1-IN-2	Y	N	Y	Y	23
13-W-201205081432	Y	Y	Y	Y	23
13-W-201205081407	Y	Y	Y	Y	23
13-W-201205081345	N	N	N	N	23
13-N-201205081437	N	N	N	N	23
13-N-201205081415	N	N	N	N	23
13-N-201205081357	N	N	N	N	23
12-W-201205101050	Y	N	Y	Y	23
12-W-201205091253	Y	Y	N	Y	23
12-N-201208081043	Y	N	N	N	23
12-N-201205081521	N	N	N	N	23
MPDG-07292016-1-OUT	Y	N	N	N	24
MPDG-07292016-1-IN	Y	Y	Y	Y	24
MPDG-07282016-1-OUT	N	N	N	N	24
MPDG-07282016-1-IN	Y	Y	Y	Y	24
ACDG-07272016-2-IN	Y	Y	Y	Y	24
MPAC-12-IW-19-OUT	Y	N	N	N	25
MPAC-12-IW-19-2-OUT	Y	N	N	N	25

**Table H-1. Field Data Point Summary**

Note: Some data points appear on more than one map sheet. This summary lists the first map sheet on which a point appears.

Data Point	Hydrophytic Vegetation?	Hydric Soils?	Wetland Hydrology?	Wetland Determination?	Map Sheet Number
MP-05312016-1-OUT-5	N	-	-	-	25
MP-05312016-1-OUT-3	Y	N	N	N	25
MP-05312016-1-OUT	Y	N	N	N	25
MP-05312016-1-IN	Y	Y	Y	Y	25
MP-05122017-2-IN	Y	Y	Y	Y	25
MP-05122017-1-IN-2	Y	Y	Y	Y	25
MP-05122017-1-IN	Y	Y	Y	Y	25
12-W-201304241447	Y	Y	Y	Y	25
12-W-201208141338	Y	Y	Y	Y	25
12-W-201208080926	Y	Y	Y	Y	25
12-W-201208071417	Y	Y	Y	Y	25
12-W-201208011055	Y	Y	Y	Y	25
12-W-201207311438	Y	Y	Y	Y	25
12-N-201208151018	Y	N	Y	N	25
12-N-201208141136	Y	N	Y	N	25
12-N-201208091331	Y	N	Y	N	25
12-N-201208091100	Y	N	Y	N	25
12-N-201208091019	Y	N	Y	N	25
12-N-201208090957	Y	N	N	N	25
12-N-201208081205	Y	N	N	N	25
12-N-201208081148	Y	N	Y	N	25
12-N-201208081107	Y	N	N	N	25
12-N-201208071455	Y	N	Y	N	25
12-N-201208011116	N	N	N	N	25
12-N-201207311358	Y	N	Y	N	25
12-N-201207311324	Y	N	N	N	25
12-N-201205101107	N	N	N	N	25
12-N-201205101000	Y	N	Y	N	25
12-N-201205100945	Y	N	N	N	25
12-N-201205100939	Y	N	Y	N	25
12-N-201205091332	Y	N	N	N	25

**Table H-1. Field Data Point Summary**

Note: Some data points appear on more than one map sheet. This summary lists the first map sheet on which a point appears.

Data Point	Hydrophytic Vegetation?	Hydric Soils?	Wetland Hydrology?	Wetland Determination?	Map Sheet Number
MP-05312016-2-OUT-2	Y	N	Y	N	26
MP-05312016-2-OUT	Y	N	Y	N	26
MP-05312016-1-OUT-4	Y	N	N	N	26
MP-05312016-1-OUT-2	Y	N	N	N	26
MP-05312016-1-IN-2	Y	Y	Y	Y	26
MP-05302017-2-OUT	Y	N	N	N	26
MP-05302017-2-IN	Y	Y	Y	Y	26
MP-05122017-2-OUT-4	Y	N	N	N	26
MP-05122017-2-OUT-3	Y	N	Y	N	26
MP-05122017-2-OUT-2	Y	N	N	N	26
MP-05122017-2-IN-2	Y	Y	Y	Y	26
12-W-201208061430	Y	Y	Y	Y	26
12-W-201208061333	Y	Y	Y	Y	26
12-W-201208061306	Y	Y	Y	Y	26
12-W-201205091657	Y	Y	Y	Y	26
12-W-201205091432	Y	Y	Y	Y	26
12-W-201205091205	Y	Y	Y	Y	26
12-N-201208171342	Y	N	Y	N	26
12-N-201208081248	Y	N	N	N	26
12-N-201208071332	Y	N	N	N	26
12-N-201207301535	Y	N	N	N	26
12-N-201207301510	Y	N	N	N	26
12-N-201207301445	Y	N	N	N	26
12-N-201207301242	Y	N	N	N	26
12-N-201207301156	Y	N	Y	N	26
12-N-201207301117	Y	N	N	N	26
12-N-201207301115	Y	N	Y	N	26
12-N-201205100812	Y	N	N	N	26
12-N-201205091438	Y	N	N	N	26
12-N-201205091325	Y	N	N	N	26
12-N-201205091255	N	N	N	N	26



**Table H-1. Field Data Point Summary**

Note: Some data points appear on more than one map sheet. This summary lists the first map sheet on which a point appears.

Data Point	Hydrophytic Vegetation?	Hydric Soils?	Wetland Hydrology?	Wetland Determination?	Map Sheet Number
12-N-201205081554	N	N	N	N	26
11-N-201205091404	Y	N	N	N	26
11-N-201205091230	Y	N	N	N	26
11-N-201205071412	N	N	Y	N	26
MPDG-07282016-3-OUT	N	N	N	N	27
MPDG-07282016-3-IN	Y	Y	Y	Y	27
ACDG-07272016-1-IN	Y	Y	Y	Y	27
ACDG-072720016-1-OUT	Y	N	N	N	27
11-N-201205091350	Y	N	N	N	27
MP-06012017-2-OUT-2	N	-	-	N	28
MP-06012017-2-OUT	Y	N	N	N	28
MP-05312016-5-OUT	Y	Y	Y	Y	28
MP-05312016-5-IN	N	-	-	N	28
MP-05312016-4-OUT-2	Y	N	N	N	28
MP-05312016-4-OUT	N	-	-	N	28
MP-05312016-4-IN	Y	Y	Y	Y	28
MP-05312016-3-OUT-2	N	-	-	N	28
MP-05312016-3-OUT	N	-	-	N	28
10-W-201209251244	Y	Y	Y	Y	28
10-W-201205110847	Y	Y	Y	Y	28
10-W-201205101412	Y	N	Y	N	28
10-N-201209251346	N	N	N	N	28
10-N-201209251225	N	N	N	N	28
10-N-201209251151	N	N	N	N	28
10-N-201205110817	Y	N	N	N	28
09-W-201207171300	Y	Y	Y	Y	28
09-W-201207161305	Y	Y	Y	Y	28
09-W-201205111219	Y	Y	Y	Y	28
09-N-201207171312	Y	N	Y	N	28
09-N-201207171228	Y	N	Y	N	28
09-N-201207161503	N	Y	N	N	28

**Table H-1. Field Data Point Summary**

Note: Some data points appear on more than one map sheet. This summary lists the first map sheet on which a point appears.

<b>Data Point</b>	<b>Hydrophytic Vegetation?</b>	<b>Hydric Soils?</b>	<b>Wetland Hydrology?</b>	<b>Wetland Determination?</b>	<b>Map Sheet Number</b>
09-N-201205111408	Y	N	N	N	28
09-N-201205111240	Y	Y	Y	Y	28
09-N-201205111105	Y	N	Y	N	28
09-N-201205101325	Y	N	N	N	28
09-N-201205101234	Y	N	Y	N	28
MP-06012017-1-OUT	N	-	-	N	30
MP-06012017-1-IN	Y	Y	Y	Y	30
10-W-201207161145	Y	Y	Y	Y	30
10-N-201209201525	N	N	N	N	30
10-N-201207171350	N	N	N	N	30
10-N-201207161110	Y	N	N	N	30
09-W-201207161355	Y	Y	Y	Y	30
09-W-201205111233	Y	Y	Y	Y	30
09-N-201207161235	N	N	N	N	30
09-N-201205111343	Y	N	N	N	30
08-W-201205111004	Y	Y	Y	Y	30
08-W-201205101305	Y	Y	Y	Y	30
08-N-201205251455	N	N	N	N	30
08-N-201205251047	N	N	Y	N	30
08-N-201205111110	N	N	N	N	30
08-N-201205111032	N	N	N	N	30
08-W-201205251403	Y	Y	Y	Y	31
MPAC-06012017-1-IN	Y	Y	Y	Y	32
MP-06012017-3-OUT-7	N	-	-	N	32
MP-06012017-3-OUT-5	N	-	N	N	32
MP-06012017-3-OUT-4	Y	N	N	N	32
MP-06012017-3-OUT-3	N	-	-	N	32
MP-06012017-3-OUT-2	Y	N	N	N	32
MP-06012017-3-OUT	N	-	-	N	32
MP-06012017-3-IN-3	Y	Y	Y	Y	32
MP-06012017-3-IN-2	Y	Y	Y	Y	32

**Table H-1. Field Data Point Summary**

Note: Some data points appear on more than one map sheet. This summary lists the first map sheet on which a point appears.

Data Point	Hydrophytic Vegetation?	Hydric Soils?	Wetland Hydrology?	Wetland Determination?	Map Sheet Number
MP-06012017-3-IN	Y	Y	Y	Y	32
08-W-201207161000	Y	Y	Y	Y	32
08-W-201205251222	Y	Y	Y	Y	32
08-N-201205110856	Y	N	Y	N	32
07-W-201207131305	Y	Y	Y	Y	32
07-W-201207131231	Y	Y	Y	Y	32
07-W-201207131150	Y	Y	Y	Y	32
07-W-201205111010	Y	Y	Y	Y	32
07-N-201207131257	N	N	N	N	32
07-N-201207131130	Y	N	N	N	32
07-N-201205111047	N	N	N	N	32
MPDGACJW-07-W-37-1-OUT	N	-	-	N	34
MPDGACJW-07-W-37-1-IN	Y	Y	Y	Y	34
DG-07-W-37-2-OUT	N	N	N	N	34
DG-07-W-37-2-IN	Y	Y	Y	Y	34
07-W-201209141629	Y	Y	N	Y	34
07-W-201207131500	Y	Y	Y	Y	34
07-W-201205111317	Y	Y	N	Y	34
07-N-201209141735	Y	N	N	N	34
07-N-201207131445	Y	N	N	N	34
07-N-201205141122	Y	N	Y	Y	34
07-N-201205141115	N	N	N	N	34
07-N-201205141100	Y	N	Y	Y	34
07-N-201205141045	Y	N	N	N	34
07-N-201205111306	Y	N	N	N	34
06-W-201205160949	Y	Y	Y	Y	34
06-W-201205160822	Y	Y	Y	Y	34
06-N-201205161013	N	N	N	N	34
06-N-201205160905	Y	N	N	N	34
06-N-201205111548	Y	N	N	N	34
06-N-201205111446	Y	N	Y	N	34

**Table H-1. Field Data Point Summary**

Note: Some data points appear on more than one map sheet. This summary lists the first map sheet on which a point appears.

<b>Data Point</b>	<b>Hydrophytic Vegetation?</b>	<b>Hydric Soils?</b>	<b>Wetland Hydrology?</b>	<b>Wetland Determination?</b>	<b>Map Sheet Number</b>
06-N-201205111434	N	N	N	N	34
06-N-201205111419	Y	N	N	N	34
AC-06-16-OUT	Y	N	Y	Y	35
AC05312017-1-out	-	-	-	-	35
06-W-201205221015	Y	Y	Y	Y	35
06-W-201205150900	Y	N	Y	Y	35
06-W-201205150800	Y	Y	N	Y	35
06-N-201205221045	Y	N	N	N	35
06-N-201205220900	Y	N	N	N	35
06-N-201205161204	Y	N	N	N	35
06-N-201205150945	N	N	N	N	35
06-N-201205141355	Y	N	N	N	35
06-N-201205141336	Y	N	N	N	35
06-N-201205141320	Y	N	N	N	35
06-N-201205141250	Y	N	N	N	35
06-N-201205111520	Y	N	N	N	35
05-W-201205151055	Y	Y	Y	Y	35
05-W-201205151005	Y	Y	Y	Y	35
05-N-201207131010	Y	N	N	N	35
05-N-201205151022	Y	N	N	N	35
05-W-201205221413	Y	Y	Y	Y	37
05-W-201205171450	Y	Y	Y	Y	37
05-W-201205171330	Y	Y	Y	Y	37
05-W-201205171026	Y	Y	Y	Y	37
05-W-201205161544	Y	Y	Y	Y	37
05-W-201205161340	Y	Y	N	N	37
05-W-201205161112	Y	Y	N	N	37
05-W-201205151511	Y	Y	Y	Y	37
05-W-201205150903	Y	Y	Y	Y	37
05-W-201205141156	Y	Y	Y	Y	37
05-N-201209131331	N	N	N	N	37



**Table H-1. Field Data Point Summary**

Note: Some data points appear on more than one map sheet. This summary lists the first map sheet on which a point appears.

<b>Data Point</b>	<b>Hydrophytic Vegetation?</b>	<b>Hydric Soils?</b>	<b>Wetland Hydrology?</b>	<b>Wetland Determination?</b>	<b>Map Sheet Number</b>
05-N-201205221430	N	N	N	N	37
05-N-201205171409	N	N	N	N	37
05-N-201205171151	Y	N	N	N	37
05-N-201205170922	Y	Y	N	N	37
05-N-201205161425	N	N	N	N	37
05-N-201205151432	Y	N	N	N	37
05-N-201205151148	N	N	N	N	37
05-N-201205151044	Y	N	N	N	37
05-N-201205150952	Y	N	Y	N	37
05-N-201205141313	Y	Y	N	N	37
05-N-201205141056	Y	N	Y	N	37



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