

# Chapter 6: Environmental Justice

<b>6.1</b>	<b>Introduction .....</b>	<b>6-1</b>
<b>6.2</b>	<b>Regulatory Setting .....</b>	<b>6-2</b>
6.2.1	Executive Order 12898 on Environmental Justice .....	6-2
6.2.2	Implementation of Executive Order 12898 .....	6-3
<b>6.3</b>	<b>Affected Environment .....</b>	<b>6-4</b>
6.3.1	Methodology .....	6-4
6.3.2	Public Outreach .....	6-5
6.3.3	Environmental Justice Populations .....	6-7
<b>6.4</b>	<b>Environmental Consequences .....</b>	<b>6-13</b>
6.4.1	Methodology .....	6-13
6.4.2	No-Action Alternative .....	6-14
6.4.3	Alternatives A1–A2 .....	6-15
6.4.4	Alternatives B1–B2 .....	6-17
6.4.5	Wetland Avoidance Options .....	6-19
6.4.6	Mitigation Measures .....	6-20
6.4.7	Cumulative Impacts .....	6-20
6.4.8	Summary of Impacts .....	6-21
<b>6.5</b>	<b>References .....</b>	<b>6-22</b>

## 6.1 Introduction

*Environmental justice* is a term used to describe the fair and equitable treatment of minority and low-income people with regard to federally funded projects and activities. *Fair treatment* means that no minority or low-income population should be forced to shoulder a disproportionately high share of negative environmental effects. Fair treatment also includes meaningful involvement and opportunities for minority and low-income people to participate in the decision-making process.

This chapter describes the location and concentration of any environmental justice populations in the West Davis Corridor (WDC) study area as well as the expected impacts of the WDC alternatives to environmental justice populations based on the best available data. The impact analysis includes both direct impacts, such as relocations, and indirect impacts, such as impacts to facilities or services that support environmental justice populations.

### What is environmental justice?

*Environmental justice* is a term used to describe the fair and equitable treatment of minority and low-income people with regard to federally funded projects and activities.

***Environmental Justice Impact Analysis Area.*** The overall environmental justice impact analysis area is the same area as the WDC study area shown in Figure 1-1, West Davis Corridor Needs Assessment Study Area, in Volume IV. As stated in Chapter 1, Purpose of and Need for Action, the WDC would change the travel patterns in this study area, and these changes could affect local populations.

Although this area is much larger than the area that is likely to have direct construction and access effects from the WDC action alternatives, this broad study area was used to identify the locations of environmental justice communities, related community services providers, and schools so that the WDC team could understand the relationship between population locations, services, and traffic patterns.

After reviewing the expected traffic and construction impacts from the WDC, the WDC team further focused the study area for the analysis of community service providers and schools on the area within 0.5 mile of the alternatives. This is the area that, based on the traffic evaluation, would likely experience most of the project-related impacts from construction and changes in traffic patterns and access. The traffic evaluation shows that most changes in travel patterns would occur close to the WDC alternatives. These changes could affect how environmental justice communities use transportation to access schools, recreation resources, and community service providers.

#### **What is the environmental justice impact analysis area?**

The overall environmental justice impact analysis area is the same area as the WDC study area shown in Figure 1-1, West Davis Corridor Needs Assessment Study Area, in Volume IV.

#### **What is the WDC team?**

The WDC team consists of the lead agencies for the WDC Project (the Federal Highway Administration and the Utah Department of Transportation).

## **6.2 Regulatory Setting**

### **6.2.1 Executive Order 12898 on Environmental Justice**

Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, was signed by President Bill Clinton on February 11, 1994. The executive order directs federal agencies to take the appropriate and necessary steps to identify and address disproportionately high and adverse effects (see Section 6.4.1, Methodology) of federal projects on the health or environment of minority and low-income populations to the greatest extent practicable and permitted by law.

The executive order also directs each federal agency to develop an agency-wide environmental justice strategy, which must address data-collection requirements, public participation, and other issues. The executive order in part reflects protections in Title VI of the Civil Rights Act of 1964, which states, “No person in the United States shall, on the ground of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving federal financial assistance.”

## 6.2.2 Implementation of Executive Order 12898

To address the presidential executive order, the U.S. Department of Transportation issued its own environmental justice order in April 1997. This order was updated in May 2012. On June 14, 2012, the Federal Highway Administration (FHWA) issued Order 6640.23a, which established FHWA's policies and procedures for complying with its obligations under the executive order (FHWA 2012). In Order 6640.23a, FHWA defines low-income and minority populations as follows:

- A *minority* is any person belonging to any of the following five groups: Black, Hispanic or Latino, Asian American, Native Hawaiian and other Pacific Islander, and American Indian and Alaskan Native.
- A *minority population* is any readily identifiable groups of minority persons who live in geographic proximity, and, if circumstances warrant, geographically dispersed or transient persons (such as migrant workers or Native Americans) who will be similarly affected by a proposed FHWA program, policy, or activity.
- *Low-income* means a household or median income at or below the poverty thresholds defined by the U.S. Department of Health and Human Services.
- A *low-income population* is any readily identifiable group of low-income persons who live in geographic proximity, and, if circumstances warrant, geographically dispersed or transient persons (such as migrant workers or Native Americans) who would be similarly affected by a proposed FHWA program, policy, or activity. (For example, depending on the area, a proposed action could cause a disproportionately high and adverse effect on a transient environmental justice population even if there are no clearly identified neighborhoods or communities near the proposed action.)

In December 2011, FHWA issued guidance for addressing environmental justice under the National Environmental Policy Act (NEPA) (FHWA 2011). The WDC team used this guidance to evaluate environmental justice populations. FHWA does not provide specific thresholds or percentages for identifying environmental justice populations but instead suggests using local U.S. Census data and other available information to identify environmental justice populations for each project.

The Council on Environmental Quality (CEQ) oversees compliance with the executive order and provides guidance on its implementation (CEQ 1997). CEQ recommends using an appropriate geographic scale for the demographic data used in the analysis and contacting entities that could have more local or recent data. Also, CEQ notes that, due to cultural distinctions among environmental justice populations, a project could have different effects on different populations.

FHWA's Order 6640.23a provides specific language to use in NEPA documents when environmental justice populations are not found within the impact analysis area or when populations are present but would not experience disproportionately high or adverse impacts as a result of the project.

## 6.3 Affected Environment

### 6.3.1 Methodology

The WDC team defined minority and low-income people and identified specific environmental justice populations, communities, and individual residences using the following methods:

- Examining the 2010 U.S. Census data for minority populations
- Examining the U.S. Census Bureau’s American Community Survey for low-income populations (U.S. Census Bureau 2012)
- Examining student data from local schools
- Holding meetings with local city and county officials
- Holding meetings with and gathering data from the area’s housing authorities, including data about Section 8 housing
- Interviewing low-income and minority community and social service providers and minority chambers of commerce
- Holding meetings with Departments of Community and Economic Development and the Utah Housing Corporation (which provides loan assistance)
- Analyzing data using geographic information systems (GIS) software
- Performing fieldwork

Even though CEQ specifically recommends using census data, these data have some limitations as a basis for identifying minority and low-income populations (which are also referred to as *communities* in this chapter) and therefore can be misleading. For example, large census tracts in rural or relatively unpopulated areas do not identify the specific locations of low-income and minority populations or individuals.

#### What are census tracts and block groups?

Census data are reported by geographical areas called *census tracts* and smaller areas within the census tracts called *block groups*.

Since the WDC study area does have large, sparsely populated census tracts, other methods suggested by CEQ were also used to identify minority and low-income populations in addition to census data. A summary of the census data regarding minority and low-income communities is shown in Figure 6-1, Distribution of Minority Population by Census Block; Figure 6-2, Distribution of Hispanic or Latino Population by Census Block; and Figure 6-3, Distribution of Poverty Population by Census Tract, in Volume IV.

Furthermore, both Weber and Davis Counties as a whole have low average percentages of minority and low-income populations (see Section 6.3.3, Environmental Justice Populations). If an area has a slightly higher percentage of minority or low-income populations than the county average (for example, 11% compared to a county average of 10%), this might not mean that there is a high concentration of environmental justice populations, only that the

area's average is above the county average. Since FHWA recommends against using specific thresholds to determine the presence of environmental justice populations, this chapter considers the context of the area (such as the presence of low-income housing, ethno-centric facilities, and other factors) as well as demographic statistics to identify environmental justice populations.

To refine the census data, the WDC team contacted organizations including minority community representatives and service providers, low-income service providers, and city economic and community planners (West Davis Corridor Team 2011). The team then consolidated the information that was obtained and plotted it on a map of the impact analysis area. This map was analyzed to determine the number and location of environmental justice populations.

Census data for minority populations in the impact analysis area are shown in Figure 6-1, Distribution of Minority Population by Census Block, and Figure 6-2, Distribution of Hispanic or Latino Population by Census Block, in Volume IV. Census data for low-income populations are shown in Figure 6-3, Distribution of Poverty Population by Census Tract, in Volume IV. Information that was identified through direct contact with government and community entities or site visits is also shown on the figures and is included in the *Environmental Justice Technical Memorandum* (West Davis Corridor Team 2011).

### 6.3.2 Public Outreach

A primary goal of environmental justice is to reach low-income and minority populations that have historically not been able to participate in the transportation decision-making process as readily as other groups (see Chapter 30, Public and Agency Consultation and Coordination). The WDC team made specific efforts to contact all people living in the WDC study area, including any low-income or minority populations.

The information gathered from the outreach was used to identify the environmental justice populations and service providers discussed in this chapter. The purpose of the outreach for the WDC Project was not only to identify low-income and minority populations but also to identify community service providers, recreational facilities, schools, and other areas or facilities that could be used by these populations and that could be affected by the WDC.

The area near the project alternatives consists of single-family residences with no apartment complexes. Overall, the home ownership rate within the cities in the impact analysis area is about 86%, although this number could be higher in the impact analysis area, since some cities extend east of Interstate 15 (I-15), outside the study area, whereas many of the apartment units are located near I-15. For comparison, Davis and Weber Counties have home ownership rates of 78% and 73%, respectively. Given the high home-ownership rate in the impact analysis area, direct mailers were used as one of many ways to inform residents about the project.

Specific public involvement and outreach efforts included the following:

- **Organizational Contacts.** Over 15 governmental and non-governmental organizations and community service providers were contacted, including low-income and minority providers, to help identify the locations of environmental justice populations and the resources they might use.
- **Public Meetings.** During the development of the Environmental Impact Statement (EIS), four different public meeting periods (scoping, alternatives development, alternatives refinement, and Draft EIS public hearings) were held throughout the impact analysis area (a meeting at the south, central, and north end of the impact analysis area for each meeting period except for the public hearings, which were held at the south and north ends). Meetings were announced in local media outlets, through Cities' websites and mailers, through mailers to all property owners along the project alternatives, and at other key locations including post offices, libraries, shopping centers, and Hill Air Force Base. Because of the potential to affect residents in the Farmington and Kaysville areas, flyers were delivered door to door for the initial public scoping meeting to ensure that residents were informed about the project.
- **E-mail Update List.** Members of the public who identified a preference for receiving project information by e-mail were sent regular updates about the project. These updates notified recipients of new information on the project website, upcoming events, and major project milestones.
- **Newsletters.** Newsletters were used to provide project information to the public at key decision points and to notify them of public events. Each newsletter included options for communicating with the WDC team and providing input on project choices by mail, e-mail, and telephone. These newsletters were distributed at community briefings, placed at community centers, mailed to the project mailing list, posted on the project website, and distributed electronically to the e-mail update list. In addition, all residents who owned property near the project alternatives were identified through county records and sent direct mailings about upcoming public meetings.
- **Telephone Hotline.** A telephone hotline recorded phone messages from people who called in their comments. A record was kept of all comments, and people who requested a response were contacted within a few days of their call. The telephone number was heavily advertised on all communication materials including fact sheets, newsletters, brochures, display advertisements, and information displays.
- **Project Website.** The project website ([www.udot.utah.gov/westdavis](http://www.udot.utah.gov/westdavis)) was used to provide public access to timely information about the project and to allow quick, easy interaction with the WDC team. The public was able to read information about the

#### What is scoping?

Scoping is an early and open process for determining the scope of issues to be addressed and for identifying the significant issues related to a proposed action.



project, including the plans under consideration, and submit their comments online. Although the website was not a primary communication method for those who do not have internet access, it was an important way for those who do have access to become involved in the project. The project website has contact information for Spanish speakers to get project information. The WDC team has also coordinated with local municipalities to post links on their websites that send the public to the WDC website if they want more information.

- **Mailing Lists.** The WDC team maintains two mailing lists to which project updates and meeting announcements are sent: an e-mail list and a postal mail list. Local and regional governmental and non-governmental organizations, community centers, and community groups are included in these lists.

### 6.3.3 Environmental Justice Populations

#### 6.3.3.1 Weber County

##### Weber County Minority Populations

###### *Census Data*

The U.S. Census Bureau reports that Weber County is 78.9% Caucasian, 16.7% Hispanic, and 14.8% other minorities (Black, Asian, and American Indian and Alaskan Native). (These percentages add up to more than 100% because the Census allows people to select more than one ethnicity.) Census data indicate that census blocks with minority percentage levels above the county average are concentrated in census blocks in the eastern part of the impact analysis area adjacent to I-15. Of the 982 census blocks that intersect the impact analysis area in Weber County, 54 (6%) have a percentage of minority residents that is higher than the county average, and 192 (20%) have a percentage of Hispanic residents that is higher than county average (U.S. Census Bureau 2010).

Most census blocks with minority and Hispanic/Latino percentage levels above the county averages are in the eastern part of the impact analysis area adjacent to I-15 (see Figure 6-1, Distribution of Minority Population by Census Block, and Figure 6-2, Distribution of Hispanic or Latino Population by Census Block, in Volume IV). Although there is a greater concentration along I-15, local government planners and community service providers said that there are no defined neighborhoods of minority populations in Weber County; rather, minority residents are dispersed throughout the county (West Davis Corridor Team 2011). Near the project alternatives, the census blocks with above-average minority populations are dispersed along 5100 West in Hooper and 4700 West in West Haven.

### **Minority Student Data**

The Weber County School District reports that its schools have an average percentage of minority students of 24% (NCES 2016). Hooper Elementary is the only school in Weber County within 0.5 mile of the alternatives and reported a lower percentage of minority students than the district-wide average (see Table 6-1).

**Table 6-1. Minority Students at Schools within 0.5 Mile of the Alternatives in Weber County**

School	Location	Percentage of Minority Students
Hooper Elementary	Hooper	5%

Source: NCES 2016

### **Hispanic and Racial Minority Community Facilities**

There are no Hispanic or racial minority community facilities within 0.5 mile of the WDC alternatives in Weber County.

## **Weber County Low-Income Populations**

### **Census Data**

The U.S. Census Bureau reports that 11.5% of the population in Weber County is below the poverty threshold used by the U.S. Department of Health and Human Services to determine poverty. In the Weber County part of the impact analysis area, the poverty percentages in census tracts 210505 and 201900 (11.9% and 33.8%, respectively) were above the county average. Figure 6-3, Distribution of Poverty Population by Census Tract, in Volume IV shows the locations of the block groups with a higher percentage of low-income households than the county average; there are no low-income census tracts within 0.5 mile of the proposed alternatives. Census tract 210505 is about 1.5 miles north of the terminus of Alternative A2. This large census tract, which includes portions of Hooper and West Haven, is sparsely populated, with a population of 6,600 people (U.S. Census Bureau 2012). The poverty percentage in this census tract (11.9%) is only slightly above that of Weber County (11.5%).

The Utah Housing Corporation does not show any of the impact analysis area as a “targeted area” for housing assistance (Utah Housing Corporation 2010). Although Weber County has 20.7% of Utah’s population, residents in Weber County (not the impact analysis area) account for 14.3% of the Utah Housing Corporation’s loans (West Davis Corridor Team 2011). This shows that Weber County residents have a lower need for housing assistance compared to the state average. Local government planners said that there are no defined areas of low-income populations,

#### **What is a targeted area?**

A targeted area is an area where the federal government is promoting home ownership.



even in the I-15 area and other parts of the impact analysis area in Weber County; rather, low-income residents are dispersed throughout the county (West Davis Corridor Team 2011).

### **Low-Income Student Data**

Students are eligible for reduced-price lunch when their parents’ income is 185% or less of the U.S. Department of Health and Human Services’ poverty guidelines, and they are eligible for free lunch when their parents’ income is 130% or less of these guidelines. The average percentage of students receiving reduced-price or free lunch in Weber County is 58% (NCES 2016). All schools within 0.5 mile of the alternatives in Weber County reported a percentage of students receiving free or reduced-price lunch that was lower than the county average (see Table 6-2).

The Head Start program in Ogden provided statistical information for schools in Weber County. The Head Start representative did not identify any clear areas of environmental justice communities, although the representative said that there is a higher demand for the Head Start program near I-15 and that not all available student openings in the classes offered in the western part of the county were filled (West Davis Corridor Team 2011).

**Table 6-2. Low-Income Students Eligible for Free or Reduced-Price Lunch at Schools within 0.5 Mile of the Alternatives in Weber County**

<b>School</b>	<b>Location</b>	<b>Percentage of Low-Income Students Eligible for Free or Reduced-Price Lunch</b>
Hooper Elementary	Hooper	34%

Source: NCES 2016

### **Community Service Providers**

There are no low-income community service providers within 0.5 mile of the WDC alternatives in Weber County.

## **6.3.3.2 Davis County**

### **Davis County Minority Populations**

#### **Census Data**

The 2010 U.S. Census Bureau reports that Davis County is 90% Caucasian, 8.4% Hispanic, and 10% other minorities (Black, Asian, and American Indian and Alaskan Native). (These percentages add up to more than 100% because the Census allows people to select more than one ethnicity.) According to the census block group data from 2010, the minorities in the impact analysis area are more concentrated in the eastern part of the impact analysis area near I-15. Of the 2,883 census blocks in the Davis County part of the impact analysis area, 280 (10%) have a percentage of minority residents that is higher than the Davis County average.

Of these same 2,883 census blocks, 628 (22%) have a percentage of Hispanic residents that is higher than the Davis County average (U.S. Census Bureau 2010).

Most census blocks with minority or Hispanic/Latino percentage levels above the county average are in the eastern part of the impact analysis area adjacent to I-15 (see Figure 6-1, Distribution of Minority Population by Census Block, and Figure 6-2, Distribution of Hispanic or Latino Population by Census Block, in Volume IV). Although there is a greater concentration along I-15, local government planners and community service providers said that there are no defined neighborhoods of minority populations in Davis County; rather, minority residents are dispersed throughout the county (West Davis Corridor Team 2011).

Although the minority populations are dispersed in Davis County near the proposed alternatives, there are three areas of interest for the analysis because the proposed WDC alternatives either would directly affect or would be immediately adjacent to these census tracts that have higher concentrations of minority populations.

The first area is the Bridgeway Island subdivision (1325 South and 4000 West) in Syracuse. At the Draft EIS stage in May 2013, this subdivision had 60 homes with 5 relocations. By the Final EIS stage, the subdivision had added about 100 homes for a total of 160 homes. The census data used to define this area as a potential minority area was taken before the subdivision was built, and it was mostly an undeveloped area with few homes. To further evaluate the subdivision for this Final EIS, the more recent (2009–2013) American Community Survey was used as well as additional analysis of the block group and block data from the 2010 Census. At the block group level, the Bridgeway Island area has a Hispanic population of 4.3%. Further analysis at the block level shows the subdivision having eight blocks with an average Hispanic population of 4.65%. However, one block (block 125401-2-099) has a slightly higher percentage of Hispanic residents in an area potentially affected by the WDC (10% Hispanic population compared to the Davis County average of 8.4%).

The second area is along Bluff Road immediately south of Antelope Drive in Syracuse. Most of the minority population in this second area lives west of Bluff Road in a census block that contains about 120 homes or in another small census block that includes about 27 homes east of Bluff Road.

The third area is in Farmington along Glovers Lane and Tippetts Lane. This area contains about 10 homes.

### ***Minority Student Data***

The Davis County School District reports that its schools have an average percentage of minority students of 13% (NCES 2016). All schools within 0.5 mile of the alternatives in Davis County reported a lower percentage of minority students than the district-wide average (see Table 6-3 below).

**Table 6-3. Minority Students at Schools within 0.5 Mile of the Alternatives in Davis County**

School	Location	Percentage of Minority Students
Canyon Creek Elementary	Farmington	ND
Eagle Bay Elementary	Farmington	4%
Endeavour Elementary	Kaysville	3%
Oquirrh Mountain	Kaysville	10%
Kay's Creek Elementary	Kaysville	ND
Buffalo Point Elementary	Syracuse	9%
Island View Academy	Syracuse	11%
Syracuse Arts Academy	Syracuse	10%
Syracuse Elementary	Syracuse	8%
Syracuse High	Syracuse	12%
Syracuse Junior High	Syracuse	11%
West Point Elementary	West Point	8%

Source: NCES 2016

ND = No data as of January 2017. School was recently opened.

### ***Hispanic and Racial Minority Community Facilities***

There are no Hispanic or racial minority community facilities within 0.5 mile of the WDC alternatives in Davis County.

### **Davis County Low-Income Populations**

#### ***Census Data***

The U.S. Census Bureau reports that 6.5% of the population in Davis County is below the poverty threshold used by the U.S. Department of Health and Human Services to determine poverty. Of the census tracts with a poverty percentage above the county average, only census tract 125303 is in an area of the proposed WDC action alternatives. The remainder of the census tracts are around I-15 in the eastern part of the impact analysis area. Census tract 125303 in West Point has a poverty percentage of 6.6%, which is only slightly above the Davis County average of 6.5%. This is a large census tract with most of its population located between 2000 West and 3000 West in Clinton, which is east of the proposed WDC action alternatives. The area of the alternatives is sparsely populated, consisting mostly of agricultural land. Figure 6-3, Distribution of Poverty Population by Census Tract, in Volume IV shows the locations of the block groups with higher percentage of low-income households than the county average (U.S. Census Bureau 2012).

The Utah Housing Corporation does not show any of the impact analysis area as a “targeted area” for housing assistance (Utah Housing Corporation 2010). Although Davis County has 14.8% of Utah’s population, residents in Davis County (not the impact analysis area) account for 13.3% of the Utah Housing Corporation’s loans (West Davis Corridor Team 2011). This

shows that Davis County residents have a lower need for housing assistance compared to the state average. There are a small number of low-income housing options in Davis County, and all are in the eastern part of the impact analysis area adjacent to I-15 (West Davis Corridor Team 2011). Local government planners said that there are no defined areas of low-income populations, even in the I-15 area and other parts of the study area in Davis County; rather, low-income residents are dispersed throughout the county (West Davis Corridor Team 2011).

### **Low-Income Student Data**

Students are eligible for reduced-price lunch when their parents' income is 185% or less of the U.S. Department of Health and Human Services' poverty guidelines, and they are eligible for free lunch when their parents' income is 130% or less of these guidelines. The average percentage of students receiving reduced-price or free lunch in Davis County is 34% (NCES 2016). All schools within 0.5 mile of the alternatives in Davis County reported a percentage of students receiving free or reduced-price lunch that was lower than or just above the county average (see Table 6-4).

Syracuse Arts Academy has a percentage of 35%. This school is a charter schools that accept students from anywhere in the county, so the student population might not indicate the makeup of the population in the area surrounding the schools. Syracuse Junior High School also has a percentage of 35%.

**Table 6-4. Low-Income Students Eligible for Free or Reduced-Price Lunch at Schools within 0.5 Mile of the Alternatives in Davis County**

<b>School</b>	<b>Location</b>	<b>Percentage of Low-Income Students Eligible for Free or Reduced-Price Lunch</b>
Canyon Creek Elementary	Farmington	ND
Eagle Bay Elementary	Farmington	11%
Endeavour Elementary	Kaysville	6%
Oquirrh Mountain	Kaysville	26%
Kay's Creek Elementary	Kaysville	ND
Buffalo Point Elementary	Syracuse	27%
Island View Academy	Syracuse	— <sup>a</sup>
Syracuse Arts Academy	Syracuse	35%
Syracuse Elementary	Syracuse	24%
Syracuse High	Syracuse	29%
Syracuse Junior High	Syracuse	35%
West Point Elementary	West Point	28%

Source: NCES 2016

<sup>a</sup> Private school; no data have been provided regarding students.

ND = No data as of January 2017. School was recently opened.

### ***Community Service Providers***

There are no low-income community service providers within 0.5 mile of the WDC alternatives in Davis County.

### **6.3.3.3 Summary of Environmental Justice Populations in Weber and Davis Counties**

In general, the highest concentration of census blocks that have percentages of minority, Hispanic, or low-income residents higher than the county averages in either Weber or Davis County in the impact analysis area is in the eastern part of the impact analysis area near I-15. Representatives of government planning agencies, Head Start, and housing programs did not identify definitive low-income or minority neighborhoods in the impact analysis area. Site visits did not identify pockets or concentrated areas of ethnic communities (such as churches, food stores, or other community resources). Although the low-income and minority populations are dispersed along the proposed alternatives, there are several areas of interest in Farmington, Syracuse, West Point, and Hooper where the proposed WDC alternatives could affect environmental justice populations.

## **6.4 Environmental Consequences**

### **6.4.1 Methodology**

The analysis in Section 6.4 focuses on environmental justice populations or communities that might be directly or indirectly affected by the proposed alternatives. The analysis is based on public input and meetings with city and county planning officials, school districts, low-income and minority housing providers, and community service providers. The methodology to determine impacts was developed by examining applicable laws, regulations, executive orders, and policy papers and guidance materials (see Section 6.2, Regulatory Setting).

With regard to transportation projects, the objective of an environmental justice analysis is to determine whether the project would cause a disproportionately high and adverse effect on an environmental justice population. According to FHWA Order 6640.23a, this type of effect would occur in the following situations:

- The adverse effect associated with the transportation project would be predominantly borne by the environmental justice population.
- The effect suffered by the minority population and/or low-income population would be appreciably more severe or greater in magnitude than the adverse effect that would be suffered by non-minority populations and/or low-income populations.

To determine the expected environmental justice impacts of the WDC, the WDC team developed a two-step approach. First, the team determined whether the proposed alternatives could cause changes to specific environmental resources, and whether these changes would then affect people in the project area. The team determined that the main resources that are likely to affect local populations are community cohesion (the extent to which a community

feels connected or cohesive), economics, relocations, transportation, air quality, noise, and water quality.

The team also considered whether changes in a hazardous waste site could negatively affect a neighborhood, but the team determined that such impacts would be short-term during construction and that appropriate measures would be taken to avoid releasing any hazardous materials. Next, the team reviewed the impact information in this EIS for these environmental resources to assess whether the impact would result in a disproportionately high and adverse effect on an environmental justice population.

The ongoing public outreach efforts for the WDC Project will provide further information about the expected effects of the project. To be consistent with NEPA and Executive Order 12898, outreach to and involvement of environmental justice communities will continue beyond the environmental (NEPA) process through final project design and construction until the project is completed.

The following sections discuss the expected impacts to environmental justice populations due to changes in community cohesion, economics, relocations, transportation, air quality, noise, and water quality. The results of these other environmental analyses are included by reference and summarized only as needed to support the findings of the environmental justice analysis.

#### **6.4.2 No-Action Alternative**

With the No-Action Alternative, the WDC would not be constructed, so no disproportionately high and adverse human health or environmental effects to low-income or minority populations would occur as a result of direct construction of the WDC. Without the WDC, travel delay and overall congestion in the region would not be reduced (see Chapter 7, Transportation). This delay and congestion would affect all populations in the WDC study area, including low-income and minority populations, by increasing travel times and allowing more congestion on arterial roads where these populations might live.

Other transportation projects identified in the Wasatch Front Regional Council's Regional Transportation Plan and by the local communities would be constructed with both the No-Action and action alternatives independent of the WDC. These projects could cause some impacts to environmental justice communities by, for example, acquiring homes or affecting community service locations. Environmental justice communities would need to be considered as part of the NEPA analysis for these projects.



### 6.4.3 Alternatives A1–A2

As described in Chapter 2, Alternatives, Alternative A is the more westerly alternative and consists of two separate alternatives: Alternatives A1 and A2. These alternatives are defined in Table 6-5.

**Table 6-5. Components of Alternatives A1–A2**

Alternative	I-15 Connection	Four-Lane Highway	Two-Lane Highway	West Point/ Hooper Cities Segment	North Terminus
A1	Glovers Lane	I-15 to 2000 West	2000 West to 1800 North	4100 West	1800 West (West Point)
A2	Glovers Lane	I-15 to 2000 West	2000 West to 5500 South	5400 West	5500 South (Hooper)

#### 6.4.3.1 Environmental Justice Analysis

After reviewing the data, the WDC team concluded that most of the low-income and minority populations in the impact analysis area are in the eastern part adjacent to I-15. No low-income or minority community service providers or low-income housing were identified within 0.5 mile of the A Alternatives. In addition, local government planners and community service providers said that there are no defined areas or entire neighborhoods wholly consisting of minority or low-income populations in the impact analysis area; rather, these populations are dispersed throughout the area. In the areas adjacent to the A Alternatives, environmental justice populations are even more dispersed than they are near I-15.

The expected impacts to air quality, noise, water quality, community cohesion, and economics from the A Alternatives would be dispersed and would not be focused in one area along the alternatives. According to the air quality and water quality analyses, no standards would be exceeded. Roadway access along the A Alternatives would be maintained similar to current conditions, so the alternatives would not affect any residents’ access to employment or services. In addition to the impacts discussed below, the WDC would also provide a benefit to all people in the communities, including low-income and minority populations, by improving overall mobility by reducing congestion.

The A Alternatives would acquire between 25 (Alternative A1) and 29 (Alternative A2) residences. The A Alternatives would have 17 residential relocations in the Bridgeway Island subdivision. Of these 17 homes, 5 relocations would be in an area with higher concentrations of Hispanic residents (10% Hispanic population compared to Davis County average of 8.4%).

All of the A Alternatives would affect the Bridgeway Island subdivision by acquiring 17 residences in this subdivision of about 160 homes and by dividing this cohesive community by separating the

#### What is a relocation?

A relocation occurs when constructing an alternative would require purchasing an occupied structure, such as a home or business. The residents or business would need to relocate.

clubhouse area from other homes in the community. At the Draft EIS stage, this subdivision had 60 homes with 5 relocations. By the Final EIS stage, the subdivision had added about 100 homes for a total of 160 homes with 17 residential relocations. The census data used to define this area as a minority area were taken before the subdivision was built, and it was mostly an undeveloped area with few homes. The entire 160-home Bridgeway Island subdivision has a Hispanic population below the Davis County average (4.65% compared to 8.4%). However, one block (block 125401-2-099), which has a slightly higher percentage of Hispanic residents (10% Hispanic population compared to the Davis County average of 8.4%), would have 5 residential relocations. Overall, the A Alternatives would relocate between 25 and 29 homes, of which 5 would be in an area with a slightly higher-than-average environmental justice population.

However, the Utah Department of Transportation (UDOT) will mitigate the impact to this subdivision by building an underpass under the WDC to connect the homes and the clubhouse. The A Alternatives would cause noise impacts to the residences in the subdivision but would also provide a potential noise barrier to minimize noise impacts (for more information, see Chapter 12, Noise). With the proposed WDC design, overall access to the Bridgeway Island subdivision would not be changed, so the WDC would not affect the community's access to employment or services. If the residents travel to employment south of Syracuse, the WDC would provide a benefit. The interdependence of community members could be reduced if assistance or a relationship is provided by a relocated resident.

In Farmington, Alternatives A1 and A2 would not acquire any residences in an area with a higher concentration of minority populations but would cause noise impacts at four residences.

Overall, the A Alternatives would cause noise impacts at between 546 and 627 residences (A1–546 and A2–627). Of these, between 108 and 110 residences would be in areas with higher concentrations of low-income and minority populations (A1–108 and A2–110). No schools or community service providers would be relocated by the project.

No schools within 0.5 mile of the A Alternatives have a substantially higher percentage of minority students or students eligible for free or reduced-price lunches than the district-wide average.

According to FHWA's guidance on environmental justice and NEPA (FHWA 2011), a disproportionately high and adverse effect on an environmental justice population would occur in the following situations:

- The adverse effect associated with the transportation project would be predominantly borne by the environmental justice population.
- The effect suffered by the minority population and/or low-income population would be appreciably more severe or greater in magnitude than the adverse effect that would be suffered by non-minority populations and/or low-income populations.

As stated above in this section, some areas with higher concentrations of minority and low-income populations would be affected by the WDC. However, the adverse effects from the WDC would not be predominantly borne by these populations, since a substantially greater

number of non-environmental justice populations would be relocated, would have their communities divided, and would be affected by noise. In addition, the relocation, noise, and community cohesion effects that would be suffered by the minority and low-income populations would not be appreciably more severe or greater in magnitude than the adverse effects that would be suffered by non-minority populations and/or non-low-income populations. All populations would receive a similar benefit from the improved mobility provided by the WDC.

In summary, based on the above analysis, Alternatives A1 and A2 would not cause disproportionately high and adverse effects on any minority or low-income populations in accordance with the provisions of Executive Order 12898 and FHWA Order 6640.23a. No further environmental justice analysis of Alternatives A1 and A2 is required.

#### 6.4.4 Alternatives B1–B2

As described in Chapter 2, Alternatives, Alternative B is the more easterly alternative and consists of two separate alternatives: Alternatives B1 and B2. These alternatives are defined in Table 6-6.

**Table 6-6. Components of Alternatives B1–B2**

Alternative	I-15 Connection	Four-Lane Highway	Two-Lane Highway	West Point City Segment	North Terminus
B1	Glovers Lane	I-15 to Antelope Drive <sup>a</sup>	Antelope Drive to 1800 North	4100 West	1800 North (West Point)
B2	Glovers Lane	I-15 to Antelope Drive <sup>a</sup>	Antelope Drive to 1800 North	4800 West	1800 North (West Point)

<sup>a</sup> The transition from a four-lane highway to a two-lane highway would occur between Antelope Drive and 700 South.

##### 6.4.4.1 Environmental Justice Analysis

After reviewing the data, the WDC team concluded that most of the low-income and minority populations in the impact analysis area are in the eastern part adjacent to I-15. No low-income or minority community service providers or low-income housing were identified within 0.5 mile of the B Alternatives. In addition, local government planners and community service providers said that there are no defined areas of minority or low-income populations in the impact analysis area; rather, these residents are dispersed throughout the area. In the areas adjacent to the B Alternatives, environmental justice populations are even more dispersed than they are near I-15.

The expected impacts to air quality, noise, water quality, community cohesion, and economics from the B Alternatives would be dispersed and would not be focused in one area along the alternatives. According to the air quality and water quality analyses, no standards would be exceeded. Roadway access along the B Alternatives would be maintained similar to

current conditions, so the alternatives would not affect any residents' access to employment or services. In addition to the impacts discussed below, the WDC would also provide a benefit to all people in the communities, including low-income and minority populations, by improving overall mobility by reducing congestion.

The B Alternatives would acquire between 18 (Alternative B1) and 19 (Alternative B2) residences. Alternatives B1 and B2 would have no residential relocations in areas with higher concentrations of minority or low-income populations. Although no residential relocations would occur in the area south of Antelope Drive along Bluff Road in Syracuse (an area that has a higher concentration of minority populations), about 30 residences would have noise impacts. About 20 residents are in an area that qualifies for a noise barrier according to UDOT policy (for more information, see Chapter 12, Noise). In addition, residents in this area believe that their cohesive community would be divided by the WDC. To mitigate this impact, UDOT will build a pedestrian underpass under the WDC to connect the communities on the opposite sides of the WDC. This underpass will also provide access to Fremont Park.

In Farmington, Alternatives B1 and B2 would not acquire any residences in an area with a higher concentration of minority populations but would cause noise impacts at four residences.

Overall, the B Alternatives would cause noise impacts at between 824 and 897 residences (B1–897 and B2–824). Of these, 173 residences would be in areas with higher concentrations of low-income, minority, and poverty populations.

No schools within 0.5 mile of the B Alternatives have a substantially higher percentage of minority students or students eligible for free or reduced-price lunches than the district-wide average.

According to FHWA's guidance on environmental justice and NEPA (FHWA 2011), a disproportionately high and adverse effect on an environmental justice population would occur in the following situations:

- The adverse effect associated with the transportation project would be predominantly borne by the environmental justice population.
- The effect suffered by the minority population and/or low-income population would be appreciably more severe or greater in magnitude than the adverse effect that would be suffered by non-minority populations and/or low-income populations.

As stated above in this section, some areas with higher concentrations of minority and low-income populations would be affected by the WDC. However, the adverse effects from the WDC would not be predominantly borne by these populations, since a substantially greater number of non-environmental justice populations would be relocated, would have their communities divided, and would be affected by noise. In addition, the relocation, noise, and community cohesion effects that would be suffered by the minority and low-income populations would not be appreciably more severe or greater in magnitude than the adverse effects that would be suffered by non-minority populations and/or non-low-income populations. All populations would receive a similar benefit from the improved mobility provided by the WDC.

In summary, based on the above analysis, Alternatives B1 and B2 would not cause disproportionately high and adverse effects on any minority or low-income populations in accordance with the provisions of Executive Order 12898 and FHWA Order 6640.23a. No further environmental justice analysis of Alternatives B1 and B2 is required.

## 6.4.5 Wetland Avoidance Options

Two wetland avoidance options are being evaluated in this Final EIS, as shown in Table 6-7. The purpose of these options is to avoid wetland impacts per guidance from the U.S. Army Corps of Engineers on wetland avoidance. Either wetland avoidance option could be implemented with any of the A or B Alternatives.

In this section, the impact information for the wetland avoidance options provides only the differences in impacts for the A and B Alternatives as a result of using the wetland avoidance options. The differences in impacts would apply to any of the A and B Alternatives if they were to use the wetland avoidance options.

**Table 6-7. Components of the Wetland Avoidance Options**

Option	Location	City	Description
Farmington	Prairie View Drive and West Ranches Road	Farmington	Shift the A and B Alternatives in Farmington about 150 feet east to the southwest side of the intersection of Prairie View Drive and West Ranches Road.
Layton	2200 West and 1000 South	Layton	Shift the A and B Alternatives in Layton about 500 feet east to the northeast side of the intersection of 2200 West and 1000 South.

The wetland avoidance options would not affect any minority or low-income populations and would have the same effects as Alternatives A1, A2, B1, and B2. Therefore, the wetland avoidance options would not cause disproportionately high and adverse effects on any minority or low-income populations in accordance with the provisions of Executive Order 12898 and FHWA Order 6640.23a.

## 6.4.6 Mitigation Measures

Under the provisions of the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, UDOT will ensure that property owners whose properties are directly affected by the WDC receive fair market value for the acquired right-of-way. It is UDOT's policy that persons relocated as a result of highway programs receive fair and humane treatment and not suffer unnecessarily as a result of programs designed for the benefit of the public.

To reduce the impacts of dividing the Bridgeway Island subdivision with the A Alternatives, UDOT will provide an underpass on Hammon Lane to ensure that all residents can access the clubhouse. To reduce the impacts of dividing residents along Bluff Road in Syracuse with the B Alternatives, UDOT will provide a grade-separated crossing to connect the Old Emigration Trail with Fremont Park. The underpass at the Bridgeway Island subdivision was coordinated with the homeowners association, and the grade-separated crossing in Syracuse was coordinated with Syracuse City.

As described in Chapter 12, Noise, under UDOT's noise-abatement policy, reasonableness factors must be collectively achieved in order for a noise-abatement measure to be considered reasonable. Based on UDOT's noise-abatement policy, noise-abatement measures are warranted at four locations, three of which are in areas with low-income and minority populations.

## 6.4.7 Cumulative Impacts

There are no anticipated cumulative impacts to environmental justice populations. Cumulative impacts were analyzed for local and regionally important issues (ecosystem resources, air quality, water quality, floodplains, farmland, economics, and community impacts). The list of resources analyzed for cumulative impacts was developed with input from resource agencies and the public during scoping.

### What are cumulative impacts?

Cumulative impacts are the resulting impacts from the proposed action combined with impacts from other past, present, and reasonably foreseeable future actions.

For a more detailed discussion of cumulative impacts, see Chapter 24, Cumulative Impacts.



## 6.4.8 Summary of Impacts

In summary, the A Alternatives would acquire between 25 and 29 residences, and the B Alternatives would acquire between 18 and 19 residences. The A Alternatives would have a greater residential relocation impacts on low-income and minority populations by acquiring about 5 residences in areas with higher concentrations of low-income and minority populations compared to none for the B Alternatives. Although the wetland avoidance options would acquire 7 residential properties, none are in a low-income or minority area.

Overall, the A Alternatives would cause noise impacts at between 546 and 627 residences (A1–546 and A2–627). Of these, between 108 and 110 residences would be in areas with higher concentrations of low-income and minority populations (A1–108 and A2–110). The B Alternatives would cause noise impacts at between 824 and 897 residences (B1–897 and B2–824). The B Alternatives would have a greater number of residential noise impacts in areas of low-income and minority populations with 173 residences affected in areas with higher concentrations of low-income and minority populations, compared to between 108 and 110 residences for the A Alternatives. Alternatives B1 and B2 would have the greatest impact with 173 residential noise impacts in areas with higher concentration of low-income and minority populations, and Alternative A1 would have the least with 108.

As summarized above, some areas with higher concentrations of minority and low-income populations would be affected by the WDC. However, the adverse effects from the WDC would not be predominantly borne by these populations, since a substantially greater number of non–environmental justice populations would be relocated, would have their communities divided, and would be affected by noise. In addition, the relocation, noise, and community cohesion effects that would be suffered by the minority and low-income populations would not be appreciably more severe or greater in magnitude than the adverse effects that would be suffered by non-minority populations and/or non-low-income populations. All populations would receive a similar benefit from the improved mobility provided by the WDC.

In summary, based on the above analysis, Alternatives A1, A2, B1, and B2 would not cause disproportionately high and adverse effects on any minority or low-income populations in accordance with the provisions of Executive Order 12898 and FHWA Order 6640.23a.



## 6.5 References

### [CEQ] Council on Environmental Quality

- 1997 Environmental Justice: Guidance under the National Environmental Policy Act. December 10.

### [FHWA] Federal Highway Administration

- 2011 Guidance on Environmental Justice and NEPA. December.
- 2012 FHWA Actions To Address Environmental Justice in Minority Populations and Low-Income Populations. FHWA Order 6640.23a. June 14.

### [NCES] National Center for Educational Studies

- 2016 National Center for Educational Statistics website. District Details. [nces.ed.gov](http://nces.ed.gov). Accessed December 6, 2016.

### U.S. Census Bureau

- 2010 Census 2010.
- 2012 Description of Income and Poverty Data Sources. [www.census.gov/hhes/www/poverty/about/datasources/description.html#acsbckgrnd](http://www.census.gov/hhes/www/poverty/about/datasources/description.html#acsbckgrnd). Accessed August 15, 2012.

### Utah Housing Corporation

- 2010 Utah Housing Corporation Target Areas. [utahhousingcorp.org/HTML/homTargeted.shtml](http://utahhousingcorp.org/HTML/homTargeted.shtml). Accessed October 12, 2010.

### West Davis Corridor Team

- 2011 Environmental Justice Technical Memorandum.