Chapter 7: Environmental Justice

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7.1 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 section describes the existing conditions of low-income and minority populations in the environmental justice impact analysis area and the expected impacts to these populations from the proposed alternatives.

Environmental Justice Impact Analysis Area. The overall environmental justice impact analysis area is the same as the Mountain View Corridor (MVC) study area shown in Figure 1-1, Mountain View Corridor Study Area Map. This broad study area was used to identify the location of environmental justice communities, related community services providers, and schools so that an understanding of the relationship between population location and services could be obtained. After a review of the data, the study area for the analysis of community service providers and schools was reduced to 0.5 mile from the alternatives. This is the area that would likely experience project-related impacts.

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7.2 Regulatory Setting

7.2.1 Executive Order 12898 on Environmental Justice

Executive Order 12898, Federal Actions To Address Environmental Justice in Minority and Low-Income Populations, was issued by President Bill Clinton on February 11, 1994. The order requires each federal agency to "make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations...." The 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.

7.2.2 Implementation of Executive Order 12898

On December 2, 1998, in accordance with Executive Order 12898, the Federal Highway Administration (FHWA) issued Order 6640.23, which established FHWA's policies and procedures for complying with its obligations under the executive order. In this order, FHWA defines low-income and minority populations as follows:

- A *minority* is any person belonging to any of the following groups: Black, Hispanic, Asian (including Native Hawaiian or other Pacific Islander), and American Indian or Alaskan Native.
- A *low-income population* is any persons having a household or median income at or below the poverty thresholds defined by the U.S. Department of Health and Human Services. For 2004, the poverty threshold was \$18,850 per year for a family of four and \$9,310 for a single person.

The Council on Environmental Quality (CEQ), the agency that has oversight of the federal government's compliance with Executive Order 12898, recommends the following process for determining the presence of and impacts to environmental justice populations:

 Agencies should identify a geographic scale for which they will obtain demographic information on the potential impact area. Agencies can use demographic data available from the U.S. Census Bureau to identify the composition of the potentially affected population. Geographic distribution by race, ethnicity, and income, as well as a delineation of tribal lands and resources, should be examined.

- Agencies should communicate with federal, tribal, state, and local health, environmental, and economic agencies that might have useful demographic information and studies.
- Agencies should recognize that the impacts within minority populations, low-income populations, or Indian tribes can be different from impacts on the general population due to a community's distinct cultural practices.

CEQ's guidance states that, "If a proposed agency action would not cause any adverse environmental impacts, and therefore would not cause any disproportionately high and adverse human health or environmental impacts, specific demographic analysis may not be warranted."

7.3 Affected Environment

7.3.1 Methodology

Minority and low-income people were defined and specific populations, communities, and individual residences were identified using the following methods:

- Examining the 2000 U.S. census (referred to as Census 2000) data
- 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
- Interviewing low-income and minority community service providers and minority chambers of commerce
- Conducting public involvement activities with low-income and minority groups
- Analyzing data using geographic information systems (GIS) software
- Performing fieldwork

There are no Native American tribal lands or resources in the environmental justice impact analysis area.

Even though CEQ specifically recommends using census information, these data have some limitations as a basis for identifying minority and low-income populations, which are also referred to as *communities* in this Environmental Impact Statement (EIS). First, the information for Census 2000 was collected in

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early 2000. Since that time, some areas of Salt Lake and Utah Counties have experienced rapid growth. For example, Census 2000 lists the population of Saratoga Springs at 1,003 persons. However, during 2001, about 40 building permits were issued monthly, and the City estimated the 2002 population at 3,700 persons in 1,010 dwelling units (InterPlan 2002). Moreover, the census data indicated low-income or minority persons in areas that are known to be sparsely populated or not populated. Lastly, the census tracts are relatively large in some areas, so they do not identify the specific locations of low-income and minority populations or individuals.

For these reasons, census data were used to identify general areas of low-income and minority populations, but other methods, as suggested by CEQ, were also used to identify minority and low-income populations. A summary of the census data regarding minority and low-income communities is shown in Figure 7-1 through Figure 7-4, Distribution of Racial Minorities in the MVC Study Area, and Figure 7-5 through Figure 7-8, Distribution of Households Living in Poverty in the MVC Study Area. Census data are reported by geographical areas called *census tracts* and smaller areas within the census tracts called *block groups*.

To refine the census data, organizations that included minority community representatives and service providers, low-income service providers, churches, and city economic and community planners were contacted. See the Environmental Justice Technical Memo (HDR 2004a) for more information. The information that was obtained from this data collection effort was then plotted on a map of the environmental justice impact analysis area. This map was analyzed to determine the number and location of environmental justice populations.

7.3.2 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, for more information). Specific efforts were made to contact low-income and minority populations through public involvement. For example, during the project scoping phase, a meeting was held in Spanish at a Hispanic community center (Centro de la Familia), and Hispanic-oriented publications and broadcast stations were contacted and provided with a media kit. In addition, a phone survey was conducted of residents in the impact analysis area. Flyers were also hand-delivered to 7,500 homes along the corridor.

During the phase of the project when the alternatives were presented to the public, a "talk truck" (see Photo 7-1) was driven through key areas in the corridor. Flyers were delivered door-to-door, and the public was invited to attend and provide input at neighborhood gatherings held in high-traffic locations.



Photo 7-1. Public Input at the Talk Truck.

Of the minority populations identified in the impact analysis area in Salt Lake County, Hispanics are the largest group (see Figure 7-15 through Figure 7-17, Distribution of Hispanic Populations in the MVC Study Area). A targeted effort was made to involve this population in the decision-making process. Flyers in Spanish were distributed to the Utah Department of Workforce Services and the Salt Lake—Tooele Applied Technology College and were e-mailed to nearly 100 Hispanic contacts including community leaders, business owners, and various Hispanic organizations. In addition, during public meetings held in May 2005 in West Valley City and Magna, public materials were made available in Spanish, and translators were available to accommodate the Spanish-speaking population in the corridor.

Other specific public involvement and outreach efforts included the following:

- Over 20 governmental and non-governmental organizations and community service providers were contacted.
- If requested, Spanish speakers provided presentations at public meetings.
 Posters and other display materials at public meetings were available in both Spanish and English.
- Members of the public who identified a preference for receiving project information by e-mail were sent regular updates about the project. These updates were to notify the public of new information on the project Web site (www.udot.utah.gov/mountainview), upcoming events, and major project milestones.
- Newsletters were used to provide project information to the public at key decision points and to provide notification of public events. Each newsletter included options for communicating with the project 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, and distributed electronically to the e-mail update list.
- The project hotline was used to record telephone 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. The hotline was available in both Spanish and English.
- The project Web site was used to provide public access to timely information about the project and to allow quick, easy interaction with project agencies. The public was able to read information about the project, including the plans under consideration, and submit their comments online. Although the Web site 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 Web site has information in both Spanish and English.
- The project team maintains two mailing lists to which project updates 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.

7.3.3 Salt Lake County

7.3.3.1 Minority Populations

Census Data. Census 2000 data were used to gain a general understanding of the demographics of the impact analysis area. To locate specific populations, other sources discussed below were used. According to Census 2000 data, the cities in the Salt Lake County portion of the impact analysis area are made up of predominantly Caucasian, non-Hispanic persons. Figure 7-1 through Figure 7-3, Distribution of Racial Minorities in the MVC Study Area, provide a summary of the census data.

There are 103 block groups in the Salt Lake County portion of the impact analysis area. In all of Salt Lake County, the average percentages of Hispanic and racial minorities are 11.89% and 11.09%, respectively. There are 26 block groups that have percentages of Hispanic and racial minorities that exceed these averages. As shown in Figure 7-1 through Figure 7-3, Distribution of Racial Minorities in the MVC Study Area, the census data indicate that the areas with the highest percentages of minority populations are in the north part of the impact analysis area in West Valley City and Kearns south of State Route (SR) 201 and north of 5400 South.

Minority Student Data. Schools in the impact analysis area were examined to further identify minority populations. There are 25 schools within 0.5 mile from the edge of the right-of-way of the alternatives in Salt Lake County. Fifteen of these schools have percentages of minority students that are higher than the county average. The average percentage of minority students in Salt Lake County is 23%. These are presented in Table 7.3-1 below and shown in Figure 7-9 through Figure 7-11, Environmental Justice Communities.

Hunter High, Thomas Jefferson Junior High, Hillside Elementary, and Whittier Elementary have percentages of minority students above the county average and are immediately adjacent to one of the alternatives. As with the census data, most of the schools with a higher percentage of minority students are north of 5400 South and south of SR 201. The schools immediately adjacent to one of the project alternatives are on 5600 West or 6000 West.

Table 7.3-1. Data on Minority Students within 0.5 Mile of the MVC Alternatives – Salt Lake County Portion of the Environmental Justice Impact Analysis Area

School	Location	Minority Students ^a
Sandburg Elementary	5325 West 3900 South, West Valley City	27.9%
Hillside Elementary	6000 West 4283 South, West Valley City	31.4%
Hunter Elementary	4500 West 4351 South, West Valley City	40.5%
Hunter High	5600 West 4200 South, West Valley City	29.5%
Hunter Junior High	6131 West 3785 South, West Valley City	29.6%
Jim Bridger Elementary	5368 W. Cyclamen Way, West Jordan	24.6%
Lake Ridge Elementary	7400 West 3400 South, Magna	18.2%
Silver Hills Elementary	5770 West 5100 South, Kearns	29.2%
Thomas Jefferson Junior High	5600 West 5850 South, Kearns	33.8%
West Valley Elementary	6409 W. Brud Drive, West Valley City	28.8%
Whittier Elementary	6000 West 3585 South, West Valley City	27.1%
Copper Hills High	5445 W. New Bingham Highway, West Jordan	15.4%
West Ridge Academy	5500 W. Bagley Park Road, West Jordan	3.0%
West Hills Junior High	8270 S. Grizzly Road, West Jordan	14.9%
Orchard Elementary	6744 West 3800 South, West Valley City	29.6%
Mountain Shadows Elementary	5255 West 7000 South, West Jordan	20.4%
Thomas W. Bacchus	5975 West 5925 South, Kearns	25.6%
Elementary Valley Crest Elementary	5240 West 3100 South, West Valley City	50.6%
Copper Hills Elementary	7635 West 3715 South, Magna	31.0%
Beehive Elementary	5220 West 5655 South, Kearns	39.8%
Beenive Liementary	3220 West 3033 South, Realis	
Copper Canyon Elementary	8917 S. Copperwood Drive, West Jordan	No data ^b
Hyden Peak Elementary	4920 W. Hyden Peak Drive, West Jordan	5.2%
Foothills Elementary	13717 S. Shaggy Peak Drive, Riverton	1.1%
South Hills Junior High	4000 West 13508 South, Riverton	4.9%
Herriman Elementary	6000 West 13170 South, Herriman	1.2%

^a Shaded cells indicate schools with a percentage of minority students that is higher than the Salt Lake County average of 23%.

Source: NCES 2004

Hispanic and Racial Minority Churches and Businesses. Churches were noted to be an important factor associated with community cohesion (see Section 6.3.1, Community Cohesion, in Chapter 6). During meetings with various community service providers and non-governmental organizations, churches that provide minority services in the impact analysis area were identified (HDR 2004b, 2004c, 2004d, 2004e, 2004f, 2004g, 2004h, 2004i, 2004j). Hispanic and other ethnic churches are shown in Figure 7-9 through Figure 7-11, Environmental Justice Communities. Two ethnic churches are within 0.5 mile of the alternatives: a Vietnamese Catholic church (5415 South 4369 West) and a Spanish Jehovah's

^b No student data are available because the school was opened in 2005.

Witnesses church (7200 West 3164 South). Many of these churches provide services in foreign languages, and because of this their members come from a large geographic area. Minority-owned businesses were identified by various state offices of ethnic and minority affairs; these businesses are also shown in Figure 7-9 through Figure 7-11, Environmental Justice Communities.

Summary of Minority Populations in Salt Lake County

The data collected indicate that minority populations are generally in the northern part of the impact analysis area in West Valley City, Kearns, and Magna (see Figure 7-1 through 7-3, Distribution of Racial Minorities in the MVC Study Area, and Figure 7-9 through Figure 7-11, Environmental Justice Communities). Minority populations are well dispersed throughout this area, according to representatives of community service providers and other minority groups including the Utah State Office of Pacific Island Affairs, Utah State Office of Black Affairs, Hawaiian Group, ChamberWest, Utah Office of Asian Affairs, Centro de la Familia, and the West Jordan Economic Development Office (HDR 2004b, 2004c, 2004d, 2004e, 2004f, 2004g, 2004h, 2004i, 2004j).

Specific minority populations were identified in the following locations:

- Low-income and minority service providers are located at 5600 West 2750 South in Salt Lake City (Utah Department of Workforce Services and Salt Lake—Tooele Applied Technology College).
- Minority populations are scattered along 5600 West both east and west of this road with the greatest concentration between 4100 South and 6200 South. Populations are also present east of 5600 West between SR 201 and 4100 South.
- There is a small concentration of ethnic businesses west of Bangerter Highway and 6200 South in the Dixie Valley Development (HDR 2004o).
- There is a minority church on 7200 West just north of 3500 South. Some scattered minority populations are present along 7200 West from SR 201 to 4100 South.

7.3.3.2 Low-Income Populations

Census Data. Census data were used to identify general areas of low-income populations. According to Census 2000, block groups in the impact analysis area have a lower percentage of households with income levels below the 1999 poverty level compared to Salt Lake County overall. In the impact analysis area, 4.9% of households were below the poverty line in 1999, compared to 7.7% for Salt Lake County as a whole.

There were 21 block groups in the impact analysis area whose percentages of households living in poverty were higher than the county average. Figure 7-5 through Figure 7-7, Distribution of Households Living in Poverty in the MVC Study Area, summarize the census information about households living in poverty. The census data show that the areas with the highest percentages of low-income populations are in the north part of the impact analysis area in West Valley City, Magna, Kearns, and Taylorsville. Only a small portion of Taylorsville falls within the impact analysis area, and those block groups with higher percentages of households below the poverty level were outside the impact analysis area.

Community Service Providers. Community services and facilities for low-income individuals within the impact analysis area were identified. To ensure that these service providers were able to participate in the decision-making process, meetings were held with them to discuss the project and any concerns they had. All facilities within 0.5 mile of the alternatives are identified in Table 7.3-2 and shown in Figure 7-9 through Figure 7-11, Environmental Justice Communities.

Table 7.3-2. Low-Income Service Providers within 0.5 Mile of the MVC Alternatives – Salt Lake County Portion of the Environmental Justice Impact Analysis Area

Low-Income Service Provider	Location
Church of Jesus Christ of Latter-day Saints (LDS) Bishop's Storehouse	3500 South 7200 West, West Valley City
Ellis R. Shipp Public Health Center	4535 South 5600 West, West Valley City
Deseret Industries Thrift Store	3602 South 7200 West, Magna
LDS Employment Services	3648 South 7200 West, Magna
Salt Lake-Tooele Applied Technology College	2750 South 5600 West, West Valley City
Utah Department of Workforce Services, West Valley Employment Center	2750 South 5600 West, West Valley City
Source: HDR 2004a	

These community service providers further helped to locate and communicate with low-income and minority populations. For example, the Utah Department of Workforce Services and the Salt Lake—Tooele Applied Technology College passed out flyers about the project in English and Spanish to the populations they serve. The types of services offered by these providers suggest that their locations were chosen to best serve low-income populations. This supports the findings of the census, which indicated that low-income populations in the impact analysis area are concentrated in West Valley City, Magna, and Kearns.

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 Salt Lake County is 33%. Fifteen of the 25 schools in the impact analysis area have percentages of students who are eligible for free or reduced-price lunches that are equal to or higher than the county average. These schools are listed in Table 7.3-3 below and shown in Figure 7-9 through Figure 7-11, Environmental Justice Communities.

Table 7.3-3. Low-Income Students Eligible for Free or Reduced-Price Lunch within 0.5 Mile of the MVC Alternatives – Salt Lake County Portion of the Environmental Justice Impact Analysis Area

School	Location	Low-Income Students Eligible for Free or Reduced- Price Lunch ^a
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Sandburg Elementary	5325 West 3900 South, West Valley City	44.2%
Hillside Elementary	6000 West 4283 South, West Valley City	39.3%
Hunter Elementary	4500 West 4351 South, West Valley City	49.6%
Hunter High	5600 West 4200 South, West Valley City	28.7%
Hunter Junior High	6131 West 3785 South, West Valley City	39.4%
Jim Bridger Elementary	5368 W. Cyclamen Way, West Jordan	39.8%
Lake Ridge Elementary	7400 West 3400 South, Magna	44.6%
Silver Hills Elementary	5770 West 5100 South, Kearns	34.8%
Thomas Jefferson Junior High	5600 West 5850 South, Kearns	43.0%
West Valley Elementary	6049 W. Brud Drive, West Valley City	38.3%
Whittier Elementary	6000 West 3585 South, West Valley City	50.0%
Copper Hills High	5445 W. New Bingham Highway, West Jordan	21.5%
West Ridge Academy	5500 W. Bagley Park Road, West Jordan	5.0%
Orchard Elementary	6744 West 3800 South, West Valley City	44.8%
Mountain Shadows Elementary	5255 West 7000 South, West Jordan	22.4%
Thomas W. Bacchus Elementary	5975 West 5925 South, Kearns	37.3%
Valley Crest Elementary	5240 West 3100 South, West Valley City	48.2%
West Hills Junior High	8270 S. Grizzly Road, West Jordan	26.9%
Copper Hills Elementary	7635 West 3715 South, Magna	50.1%
Beehive Elementary	5220 West 5655 South, Kearns	38.5%
Copper Canyon Elementary	8917 S. Copperwood Drive, West Jordan	No data ^b
Hyden Peak Elementary	4920 W. Hyden Peak Drive, West Jordan	18.3%
Foothills Elementary	13717 S. Shaggy Peak Drive, Riverton	12.5%
South Hills Junior High	4000 West 13508 South, Riverton	18.8%
Herriman Elementary	6000 West 13170 South, Herriman	19.4%

^a Shaded cells indicate schools with a percentage of students who are eligible for free or reduced-price lunch that is higher than the Salt Lake County average of 33%.

Source: NCES 2004

^b No student data are available because the school was opened in 2005.

Hillside Elementary School, Thomas Jefferson Junior High, and Whittier Elementary have higher-than-average percentages of low-income students and are immediately adjacent to one of the alternatives. Similar to the minority data, the low-income schools with a higher percentage of students eligible for free or reduced-price lunches are north of 5400 South and south of SR 201. The schools immediately adjacent to one of the project alternatives are on 5600 West or 6000 West.

Local Low-Income Data. The Utah office of the U.S. Department of Housing and Urban Development (HUD), the Salt Lake County Housing Authority, the Salt Lake City Housing Authority, and the West Valley City Housing Authority service all public, subsidized housing and Section 8 properties in the Salt Lake County portion of the impact analysis area.

Section 8 is a program administered by HUD through local public housing authorities. The Section 8 program provides eligible low-income families with rental assistance in the form of vouchers that allow participants to pay a limited proportion of their income for rent. There are over 200 Section 8 users in the impact analysis area, and these are shown in Figure 7-9 through Figure 7-11, Environmental Justice Communities (HDR 2004k). As shown in the figures, most residents who are receiving rental assistance are in the northern part of the impact analysis area in Magna, West Valley City, and Kearns between SR 201 and 7000 South and between 4800 West and 8000 West.

The Utah Housing Corporation helps create affordable housing and provides housing assistance through programs for first-time home buyers. To date, the Utah Housing Corporation has assisted with more than 21,000 home loans in Salt Lake County. Homes purchased in the impact analysis area using Utah Housing Corporation loans are shown in Figure 7-9 through Figure 7-11, Environmental Justice Communities. The distribution of residents who have participated in the first-time home buyers' program is similar to the distribution of residents who are receiving rental assistance.

Summary of Low-Income Populations in Salt Lake County

Low-income populations are generally found in the northern part of the impact analysis area in Kearns, Magna, and West Valley City, along with a few isolated populations scattered elsewhere. Specifically, low-income service providers are located on 7200 West and about 3600 South (LDS Bishop's Storehouse, LDS Employment Services, and Deseret Industries), and there are two food banks located at 3041 South 8560 West and 4445 West 5175 South. These service providers stated that their location was chosen to better serve low-income people in this community (HDR 2005a, 2005b). Specific low-income populations were identified in the following locations:

- There is a low-income community at about 7200 West 2600 South in Magna.
- There are low-income communities between 4800 West and about 5400 West and between 6200 South and 6600 South.
- Low-income populations are scattered along 5600 West between about 4100 South and 4700 South.
- The West Valley City Housing Authority manages Section 8 properties in the following locations:
 - Seven properties between 4100 South and 3500 South and between
 6400 West and 7200 West in West Valley City
 - o Two properties near 4000 West 4700 South
 - o One property near 3100 South 4100 West

7.3.4 Utah County

7.3.4.1 Minority Populations

Census Data. Census data were used to identify general areas of minority populations. According to Census 2000 data, the cities in the Utah County portion of the impact analysis area are made up of predominantly Caucasian, non-Hispanic persons. Figure 7-4, Distribution of Racial Minorities in the MVC Study Area – Utah County, provides a summary of the census data about minorities living in the environmental justice impact analysis area. The population in the Utah County portion of the impact analysis area is 89% Caucasian, 7% Hispanic, 0.4% Black, 0.5% American Indian or Alaskan Native, 0.4% Asian, and 0.6% Hawaiian or other Pacific Islander. Overall, block groups in the Utah County portion of the impact analysis area have a lower percentage of Hispanic minorities and racial minorities than Utah County as a whole.

There are 20 block groups in the Utah County portion of the impact analysis area. The average percentages of Hispanic and racial minorities in the county are 7.00% and 2.48%, respectively. There are six block groups that exceed the average percentage of racial minorities only and two that exceed the average percentage of Hispanic minorities only.

Minority Student Data. In Utah County, Sego Lily Elementary, Harvest Elementary, Lehi Elementary, and Lakeview Academy Charter are the only schools within 0.5 mile of the alternatives. Sego Lily Elementary has a minority enrollment of 5% and Lehi Elementary has a minority enrollment of 8%, both of which are below the Utah County average of 11.9%. No data were available for Harvest Elementary or Lakeview Academy Charter.

Hispanic and Racial Minority Churches and Businesses. In Utah County, no Hispanic or minority churches or businesses in the impact analysis area were identified from the data sources described in Section 7.3.1, Methodology.

Summary of Minority Populations in Utah County

In the Utah County portion of the impact analysis area, there is a low percentage of minority populations that is well-distributed and not concentrated in specific areas (HDR 2004l, 2004m, 2004n). A specific population was identified by Lehi City north of 2100 North near the rail corridor (1800 West) in the city. All minority populations identified in the Utah County portion of the impact analysis area are shown in Figure 7-12 through Figure 7-14, Environmental Justice Communities.

7.3.4.2 Low-Income Populations

Census Data. Census data were used to identify general areas of low-income populations. There are 20 block groups in the Utah County portion of the impact analysis area. In Utah County, 10.7% of households were below the 1999 poverty level, compared to 7.7% for Salt Lake County. There are four block groups in Lehi that have percentages of low-income households higher than the county average. Figure 7-8, Distribution of Households Living in Poverty in the MVC Study Area – Utah County, summarizes the census information about persons living in poverty.

Community Service Providers. There are no low-income community service providers in the Utah County portion of the impact analysis area.

Low-Income Student Data. In Utah County, Sego Lily Elementary, Harvest Elementary, Lehi Elementary, and Lakeview Academy Charter are the only schools within 0.5 mile of the alternatives. At Sego Lily Elementary, 23% of the

students are eligible for free lunches, and at Lehi Elementary, 22% of the students are eligible for free lunches, both of which are below the Utah County average of 28%. No data were available for Harvest Elementary or Lakeview Academy Charter.

Local Low-Income Data. There are no low-income housing units near the proposed alternatives in the Utah County portion of the impact analysis area.

Summary of Low-Income Populations in Utah County

Based on the data collected and interviews performed, no large groups of low-income populations were identified in the Utah County portion of the impact analysis area. The Utah County Housing Authority and Lehi City identified the following locations that might include low-income housing; these are shown in Figure 7-12 through Figure 7-14, Environmental Justice Communities (HDR 2004l, 2004m, 2004n):

- Mixed housing near Thanksgiving Point in the Mayflower Harbor and Pilgrim's Landing developments in Lehi
- Mobile-home parks at 55 W. State Street, 400 W. State Street, and 900 N. State Street in Lehi
- 2100 North near Interstate 15 (I-15) in Lehi
- Center Street between 700 South and 900 South in Lehi

7.4 Environmental Consequences

7.4.1 Methodology

The analysis in this section 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, community service providers, and religious organizations. The methodology to determine impacts was developed by examining applicable laws, regulations, executive orders, and policy papers and guidance materials (see Section 7.2, Regulatory Setting).

With regard to transportation projects, the objective of an environmental justice analysis is to determine whether the benefits and costs of a transportation project would be experienced differently by minority and low-income populations than by other members of society.

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 adverse effect on the environmental justice population would be substantially more severe or greater in magnitude than the adverse effect on the non–environmental justice population.

To determine the expected environmental justice impacts, a two-step approach was developed. First, it was determined whether the proposed alternatives could cause changes to resources, and whether these changes would then affect people in the project area. The main resources that are likely to affect local populations were determined to be community cohesion (the extent to which a community feels connected or cohesive), economics, relocations, transportation, air quality, noise, and water quality. Although changes in a hazardous waste site could negatively affect a neighborhood, it was determined that impacts would be short-term during construction and that appropriate measures would be taken to avoid the release of any hazardous materials.

Next, the impact information was reviewed for these resources in this EIS to determine if the impacts would exceed a law, regulation, guidance, or accepted guideline, or if, based on professional judgment, the impacts would have some effect on environmental justice communities. If it was determined that any of the previous conditions would occur, the second step was to decide whether the impact would result in a disproportionately high and adverse effect on an environmental justice population.

The ongoing public outreach efforts for the MVC project will provide further information on expected project impacts and help determine effective mitigation measures. To be consistent with the National Environmental Policy Act and Executive Order 12898, outreach to and involvement of environmental justice communities will continue beyond the environmental 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.

The impact analysis has been updated since the Draft EIS based on refinements to the action alternatives as described in Section 2.1.7.3, Design Options

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Incorporated in the Final EIS, and Section 2.1.7.4, Additional Changes to the Alternatives between the Draft EIS and Final EIS.

7.4.2 No-Action Alternative

Under the No-Action Alternative, the MVC project 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 the MVC. Other transportation projects identified in the Wasatch Front Regional Council and Mountainland Association of Governments long-range plans and by the local communities would be constructed, and these projects could result in some impacts to environmental justice communities. These other projects will need to consider environmental justice communities as part of the project analysis.

7.4.3 Salt Lake County Alternatives

In Salt Lake County, two roadway alternatives and a transit alternative which would be implemented as part of the roadway alternatives are under consideration: the 5600 West Transit Alternative, the 5800 West Freeway Alternative, and the 7200 West Freeway Alternative. Under the 5600 West Transit Alternative, there is a dedicated right-of-way option and a mixed-traffic option. In addition, a tolling option was considered for each freeway alternative. Impacts under each combination of alternatives and options are discussed in the following sections.

The data collected indicate that minority populations are generally located in West Valley City, Kearns, and Magna. Because there are no large concentrations or communities of minority populations farther south through West Jordan, South Jordan, Herriman, and Bluffdale, any identified impacts would not result in disproportionately high and adverse human health or environmental effects on minorities in these communities.

In summary, because minority and low-income populations are generally well distributed throughout these communities, the proposed alternatives are not expected to result in disproportionately high and adverse human health or environmental effects. This conclusion is based on an analysis that focuses on the areas of West Valley City, Kearns, and Magna where there is a potential for the MVC project to affect environmental justice communities.

7.4.3.1 5600 West Transit Alternative

As described in Chapter 2, Alternatives, two transit options are under consideration along 5600 West in Salt Lake County. One option, the Dedicated Right-of-Way Option, would incorporate a transit system running down the

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center of the roadway, and the other, the Mixed-Traffic Option, would incorporate a transit system running alongside the roadway.

During meetings with low-income and minority service providers, it was noted that the 5600 West Transit Alternative would benefit environmental justice populations. Specifically, these populations would benefit because of increased access to affordable transportation along a corridor that includes shopping and other services. A transit station or transit stop near the Salt Lake–Tooele Applied Technology College and the Utah Department of Workforce Services (2750 South 5600 West) would benefit environmental justice populations that currently do not have adequate public transportation to these services. As part of the 5600 West Transit Alternative, a transit station or transit stop has been proposed at 2700 South 5600 West.

Along the transit alternative, the only concentration of environmental justice communities is along 5600 West at about 4100 South to 4700 South in an area of residential and commercial developments.

5600 West Transit Alternative with Dedicated Right-of-Way Transit Option

Community Cohesion Impacts

Along the Dedicated Right-of-Way Transit Option, the only concentration of environmental justice communities is along 5600 West at about 4100 South to 4700 South. The new transit corridor would not affect the cohesiveness of any of the communities along this option, including this environmental justice community. The transit option would be placed in the existing 5600 West roadway for most of the alignment and therefore would not further divide any communities. In the long term, transit would provide a benefit to community cohesion specifically around transit stops where transit-oriented developments are planned by the local municipalities. These types of developments foster a more cohesive community by encouraging interaction through walkable mixed-use land uses (that is, residential and commercial uses in the same area).

Economic Impacts

Under the Dedicated Right-of-Way Transit Option, there would be no negative economic impacts on environmental justice populations from the transit line. For the most part, the transit line could improve the economic conditions along 5600 West by providing more employment opportunities near transit stations and increasing property values. Overall, there would be no disproportionately high and adverse economic effect on any environmental justice community.

Relocations

Under the Dedicated Right-of-Way Transit Option, there would be one residential relocation on 5600 West at about 5500 South. This residential property is in an area identified as having the potential for low-income and/or minority populations. The housing data from community service providers showed that the property was not identified as subsidized housing or housing purchased by a minority homeowner. There would also be no relocations of community service providers or churches that support environmental justice communities.

Transportation Impacts

Operation of transit along 5600 West would result in some reduced travel time and congestion as posted vehicle speeds are reduced from 45 mph (miles per hour) to 35 mph so that the roadway can accommodate the additional pedestrian traffic related to the transit service. However, congestion would still be less than under the No-Action Alternative. Based on the reduced congestion levels and the increase in public transportation, there would be no disproportionately high and adverse transportation effect on any environmental justice community.

Air Quality Impacts

As discussed in Chapter 12, Air Quality, the Dedicated Right-of Way Transit Option would not cause air quality standards to be exceeded. Similarly, mobile-source air toxic (MSAT) emissions associated with the 5600 West Transit Alternative with Dedicated Right-of-Way Option would make up a small component of overall regional MSAT emissions and are not expected to result in MSAT air quality impacts to any populations. Localized carbon monoxide (CO) impacts are also not expected as a result of this alternative. Because there would be no project-related air quality impacts, there would not be any disproportionately high and adverse effects on any environmental justice community.

Noise Impacts

As discussed in Chapter 13, Noise, the noise from Dedicated Right-of-Way Transit Option would not exceed Federal Transit Administration noise criteria at any sensitive receptors. Because there would be no project-related noise impacts, there would be no disproportionately high and adverse effect on any environmental justice community.

Water Quality Impacts

As discussed in Chapter 14, Water Quality, the Dedicated Right-of-Way Transit Option would not cause any impacts to water quality. Because there would be no project-related water quality impacts, there would be no disproportionately high and adverse effect on any environmental justice community.

5600 West Transit Alternative with Mixed-Traffic Transit Option

The impacts to environmental justice communities from the Mixed-Traffic Transit Option would be the same as those from the Dedicated Right-of-Way Transit Option except for relocations, which are discussed below.

Relocations

Under the Mixed-Traffic Transit Option, there would be no residential relocations and no relocation of community service providers or churches that support environmental justice communities. Because there would be no project-related relocation impacts, this option would not have a disproportionately high and adverse effect on any environmental justice community.

7.4.3.2 5800 West Freeway Alternative

As described in Chapter 2, Alternatives, this alternative would consist of a freeway extending from Interstate 80 (I-80) to the Utah County line.

For the 5800 West Freeway Alternative, the environmental justice analysis focuses on the area between SR 201 and 5400 South, which is where most of the impacts to the human environment would occur for this alternative. South of 5400 South, the 5800 West Freeway and 7200 West Freeway Alternatives would follow the same alignment in an area that is mostly undeveloped. A review of the available data showed no environmental justice communities along the alternative south of 5400 South.

In the focus area (north of 5400 South), the data also do not show any concentrations of low-income or minority populations along the 5800 West Freeway or 7200 West Freeway Alternatives, though there are environmental justice households scattered throughout this area.

Community Cohesion Impacts

An analysis of project-related impacts to community cohesion is provided in Chapter 6, Community Impacts. Based on that analysis, it is expected that, for the communities as a whole and for those areas located more than a few blocks east or west of the 5800 West Freeway Alternative, the 5800 West Freeway Alternative

would have little influence on patterns of social interaction or the overall social environment. Existing social conditions, including interaction among neighbors and neighborhood activity patterns, would likely remain the same in areas outside the alternative. The MVC is being constructed partly in response to community concerns about growth and traffic congestion and the need for improved road capacity to handle north-south traffic. For these reasons, the community-wide social impacts of this alternative could help the community interact and bond more easily, which are important factors that influence community cohesion.

Residents in households along the new roadway could experience some reduced interactions with and ties to their immediate neighbors due to increased traffic and noise that would make their outdoor environment less attractive, but such impacts are not expected to affect the overall feeling of community in the area. In summary, because no impacts to community cohesion are anticipated from the 5800 West Freeway Alternative, there would be no disproportionately high and adverse effect on community cohesion for any environmental justice community.

Economic Impacts

In general, the 5800 West Freeway Alternative would have a beneficial economic impact to the traveling public by reducing travel times and would benefit all groups in the region, including environmental justice communities. It is expected that the 5800 West Freeway Alternative would result in a travel-time savings of \$121 million in 2030 compared to the No-Action Alternative (see Chapter 9, Economics).

This alternative would displace 14 businesses (nine commercial businesses and five industrial businesses). Although this alternative would disrupt the businesses themselves, their owners, and the employees, these businesses are types that can be relocated within the economic impact analysis area with little disruption to local commerce and employment. Any effects of relocation would be felt equally by all types of populations and would not result in disproportionate effects to low-income or minority workers.

Market conditions and other factors such as noise can negatively affect adjacent property values and/or the time involved in selling a property. Although some effects might be negative, improved accessibility due to an improved transportation system is expected to have a positive effect on property values in the area as a whole. However, because no concentrations of low-income or minority populations were identified near the 5800 West Freeway Alternative, there would be no disproportionately high and adverse effect on the property values of any environmental justice community.

Relocations

Under the 5800 West Freeway Alternative there would be 175 relocations, of which 160 would be residential relocations (house, apartment, and duplex). The relocations would affect all types of populations and would not result in disproportionate effects to environmental justice communities. There would be no relocations of community service providers or churches that support environmental justice communities.

A few community service providers (Utah Department of Workforce Services and the Salt Lake–Tooele Applied Technology College) are east of the proposed alignment on 5600 West but would not be affected by operation of the 5800 West Freeway Alternative. Construction could cause some temporary disruption to these community service providers along with an ethnic church, all of which are located with 0.5 mile of the alternative.

A review of the information provided by the Utah office of HUD, the Salt Lake County Housing Authority, the Salt Lake City Housing Authority, and the West Valley City Housing Authority showed that none of the residential properties serviced or administered by these agencies would be affected by the 5800 West Freeway Alternative. However, one residential unit purchased by a minority would be relocated (on Burdock Drive, West Valley City). Overall, the residential relocations associated with the 5800 West Freeway Alternative would affect the entire community, and no specific group (such as environmental justice populations) would experience disproportionately high and adverse residential relocation impacts.

Transportation Impacts

Under the 5800 West Freeway Alternative, overall traffic congestion levels would improve compared to the No-Action Alternative throughout the transportation impact analysis area (see Chapter 8, Transportation), and the reduced congestion would benefit all groups in the environmental justice impact analysis area, including environmental justice groups. The main roads that would not experience improved conditions are SR 201 and Interstate 80 (I-80) near the MVC connection points. The traffic on these highways at the connection points would affect the entire region, and no specific group (such as environmental justice populations) would experience disproportionate effects.

Air Quality Impacts

As discussed in Chapter 12, Air Quality, the 5800 West Freeway Alternative would not cause air quality standards to be exceeded. Localized CO analyses, or "hot-spot" analyses, were conducted at two interchange locations in the MVC air

quality impact analysis area. These analyses show that modeled CO concentrations were below the 1-hour and 8-hour National Ambient Air Quality Standards (NAAQS) for CO. In addition to the priority pollutants for which there are NAAQS, the U.S. Environmental Protection Agency (EPA) also regulates air toxics and has specific responsibilities for determining the health effects of MSATs. The MSAT evaluation for the 5800 West Freeway Alternative presented in Chapter 12, Air Quality, demonstrates that annual MSAT emissions would decrease in the future over existing conditions due to EPA's ongoing programs to control hazardous air pollutants from mobile sources. Because CO emissions would be below the NAAQS and because overall vehicle air emissions would be distributed along the entire MVC alternative, there would be no disproportionately high and adverse effect on any one specific population, including environmental justice communities.

Noise Impacts

Under the 5800 West Freeway Alternative, about 379 multi-family or single-family residences along the alternative would experience noise levels that exceed applicable Utah Department of Transportation (UDOT) noise criteria (before noise mitigation measures are taken). There are no concentrations of low-income or minority populations along the 5800 West Freeway Alternative north of 5400 South, only individual scattered residences. The greatest concentration of residences that are subject to noise impacts is around 4100 South, where a total of about 77 residences would exceed the noise criteria. This total includes environmental justice and non–environmental justice households, the noise impacts in this area would affect all households equally (see Chapter 13, Noise), and no specific group (such as environmental justice populations) would experience disproportionate effects.

Water Quality Impacts

As discussed in Chapter 14, Water Quality, the 5800 West Freeway Alternative would not cause adverse impacts to water quality. Because there would be no project-related water quality impacts, there would be no disproportionately high and adverse effect on any environmental justice community.

Combined Impacts of 5800 West Freeway and 5600 West Transit Alternatives

5800 West Freeway Alternative with Dedicated Right-of-Way Transit Option

Community Cohesion Impacts. As discussed above for the Dedicated Right-of-Way Transit Option and the 5800 West Freeway Alternative, there would be no

disproportionately high and adverse effect on community cohesion for any environmental justice community from either of these transportation improvements individually. Because the Dedicated Right-of-Way Transit Option would likely improve community cohesion and because no disproportionately high and adverse effects from the 5800 West Freeway Alternative are expected, the combined improvements would not have a disproportionately high and adverse effect on community cohesion for any environmental justice community.

Economic Impacts. The Dedicated Right-of-Way Transit Option would not result in a disproportionately high and adverse effect to any environmental justice communities and would likely provide an economic benefit. In addition, it is not expected that the 5800 West Freeway Alternative would result in any disproportionately high and adverse economic effects. Overall, combining these alternatives would likely provide an economic benefit (job growth) to the adjacent communities by providing improved transportation access and, over the long term, could increase property values in the region. Therefore, no disproportionately high and adverse economic effects would occur.

Relocations. Individually, neither the 5800 West Freeway Alternative nor the Dedicated Right-of-Way Transit Option would have a disproportionately high and adverse effect on relocations for any environmental justice community. Because there would be only one residential relocation with the transit option and because relocations associated with the 5800 West Freeway Alternative would not result in a disproportionately high and adverse effect on any environmental justice community, the combination would likewise not result in such effects.

Transportation Impacts. Combined with the 5800 West Freeway Alternative, the Dedicated Right-of-Way Transit Option would improve traffic congestion compared to the No-Action Alternative throughout the transportation impact analysis area. This would benefit all groups in the environmental justice impact analysis area, including environmental justice groups. Therefore, there would be no disproportionately high and adverse effect on any environmental justice community.

Air Quality Impacts. Combined, the 5800 West Freeway Alternative and the Dedicated Right-of Way Transit Option would not cause air quality standards to be exceeded. Because CO emissions would be below the NAAQS and because overall vehicle air emissions would be distributed along the entire MVC alternative, there would be no disproportionately high and adverse effect on any one specific population, including environmental justice communities.

Noise Impacts. The 5800 West Freeway Alternative and the Dedicated Right-of-Way Transit Option are separated enough that they would not combine to increase noise levels in the surrounding neighborhoods. Therefore, the impacts to

all communities, including environmental justice communities, would consist of the impacts from either the freeway alternative or the transit option. Because there would be no project-related noise impacts, there would be no disproportionately high and adverse effect on any environmental justice community.

Water Quality Impacts. As discussed in Chapter 14, Water Quality, none of the action alternatives would cause adverse impacts to water quality. Because there would be no project-related water quality impacts, there would be no disproportionately high and adverse effect on any environmental justice community from the 5800 West Freeway Alternative with Dedicated Right-of-Way Transit Option.

5800 West Freeway Alternative with Mixed-Traffic Transit Option

The environmental justice impacts from the 5800 West Freeway Alternative with Mixed-Traffic Transit Option would be the same as those from the 5800 West Freeway Alternative with Dedicated Right-of-Way Transit Option.

5800 West Freeway Alternative with Tolling Option

The impacts to environmental justice communities would be the same under the tolling option as under the non-tolled alternative except for the impact of the tolling fee on these communities. Tolling this alternative could have the following effects on environmental justice communities:

- The benefits of the MVC might not be as readily available to
 environmental justice communities because of the tolling cost to lowincome users. Lower-income drivers who pay the toll would pay a higher
 proportion of their income in tolls than would higher-income drivers.
- Traffic would increase in environmental justice communities as a result
 of toll diversion effects because travelers would try to avoid the toll by
 diverting onto smaller, parallel roads. The increased local traffic could
 negatively affect noise levels, pedestrian safety, air emissions, access,
 and community cohesion.

These two effects of tolling are discussed further below.

Availability of Benefits to Low-Income Users

This section presents an analysis of the effects of tolling on low-income users. This analysis is divided into two areas: a general overview of impacts and data from previous studies, and a more specific quantitative analysis based on travel demand data.

The proposed MVC facility could be tolled with variable tolls that could be adjusted based on the time of day or level of congestion, with the highest tolls occurring during the peak, or most congested, periods. For each alternative, many of the benefits of improved mobility occur across the MVC study area. Travelers on existing local roads would experience less congestion in the future; however, the greatest benefit for travelers would be experienced by those who currently use the local road network and would be able to make their trip on the MVC. Travelers who use the public bus service on the toll facility would not be directly subject to the toll; therefore, these people would have the full benefit of improved transportation. People who travel by car could also shift their travel times, consolidate trips, or carpool to avoid the highest tolls.

If they are unwilling to pay a toll, travelers who use a private car to travel in the impact analysis area would still be able to use the existing road network for free and would experience improved mobility, accessibility, and safety on the local road network as a result of the 5800 West Freeway Alternative. An extensive network of non-tolled facilities connects residents of these areas with all of Salt Lake County's activity and employment centers.

General Overview from a Recent Study. A recent study (Sullivan 2000) on SR 91 in Orange County, California, has shown that facilities that collect a fee based on time of travel or occupancy (value pricing) have not attracted only high-income motorists. SR 91 was the first value-pricing facility in the United States and has been extensively studied since it opened in December 1995. According to user surveys, motorists who use the SR 91 express lanes on any given day are an economically diverse group, with commuters in high-income groups being just over twice as likely as commuters in low-income groups to be frequent toll-lane users (23% compared to 10%).

Although the Sullivan study found a clear correlation between higher income and frequency of toll-lane use, 50% of the highest-income travelers (more than \$100,000 annual household income) report that they never or infrequently use the toll lanes, while 25% of the lowest-income travelers (less than \$25,000 annual household income) report they frequently use the toll lanes (50% of the time or more). This finding indicates that users' value of time spent in traffic is not directly related to income, and it also proves that people value their time differently day-to-day, depending on daily commitments such as day care, second jobs, or other appointments. This day-to-day decision ultimately provides all motorists with an equal choice.

Quantitative Analysis Based on Travel Demand Data. To quantify the effects of tolling on low-income users, a trip destination study was conducted to determine the relationship between low-income areas in the environmental justice impact

analysis area and the travel patterns of residents in these areas. The data show that low-income communities are distributed throughout the area north of 7000 South, with concentrations west of 5600 West between 6200 South and 6600 South and along 7200 West north of 4100 South to SR 201. Existing travel patterns indicate that low-income users in these areas would not be overly dependent on the MVC toll facility for access to work or non-work destinations.

To determine the travel patterns from these areas, trips from home to work and back were evaluated. The origin-destination study found that about 32% of the work trips within this area were local trips (for example, local employment areas near the home) for which the traveler is more likely to use local surface streets than the MVC. The majority of work trips (54%) from this area are to the north (Salt Lake City International Airport and International Center), east (Salt Lake City, Midvale, and Sandy area), and northeast (North Salt Lake, Davis County, and Weber County). The remaining 14% of work trips are to the south. Environmental justice populations from the area along 5600 West and 7200 West who are not willing to pay tolls have an extensive network of non-tolled options including using 5600 West and 7200 West to travel to SR 201 or I-80 and using east-west streets such as 3500 South, 4100 South, and 5400 West to access Interstate 215 (I-215) or I-15.

The identified environmental justice communities in the northern part of the impact analysis area could use the following alternate routes:

- 5600 West and Adjacent Areas. Residents of these areas could travel on 5600 West for 2 to 7 miles to SR 201 for travel toward Salt Lake City, I-215, and I-15. Using this route would result in an additional travel time of about 3 to 10 minutes compared to using the MVC, assuming a 25mph travel speed on 5600 West and a 60-mph travel speed on the MVC.
- 7200 West and Adjacent Areas. Residents of these areas could use 7200 West to travel the 2 to 3 miles to SR 201 from 3500 South and 4100 South, respectively. Using 7200 West would likely not result in additional travel time compared to using the MVC since the residents would need to travel west 2 to 3 miles to reach the MVC at 5800 West before heading north to SR 201.

The greatest overall impact of the toll facility would be to the communities south of 7000 South in West Jordan, South Jordan, Herriman, and Riverton because they have few alternate routes and would pay higher tolls for the greater travel distance. However, available data show that these areas do not have environmental justice communities.

In summary, available data show that toll facilities do not attract only moderate or high-income users and that the value of time is often as great a consideration as the actual cost (toll) associated with using a tolled facility. Residents of the area also have alternate options for traveling through the communities in the environmental justice impact analysis area. No disproportionately high and adverse effects on any environmental justice populations are expected as a result of a tolled 5800 West freeway.

Toll Diversion Effects

A review of travel demand data shows that traffic would increase in some areas compared to the No-Action Alternative if the tolling option is implemented. This effect is referred to as toll diversion. Toll diversion would mainly affect surface streets adjacent to the toll facility as more traffic from all types of communities uses the streets to avoid paying the toll. The main surface street on which traffic would increase compared to the No-Action Alternative is California Avenue (7200 West to Bangerter Highway), where the level of service would decrease from LOS A to LOS C. (See Section 1.6.3.1, Level of Service, for an explanation of level of service.)

The area along California Avenue is primarily industrial, and no environmental justice communities were found.

7.4.3.3 7200 West Freeway Alternative

As described in Chapter 2, Alternatives, this alternative would consist of a freeway extending from I-80 to the Utah County line.

For the 7200 West Freeway Alternative, the environmental justice analysis focuses on the area between SR 201 and 5400 South, which is where most of the impacts to the human environment would occur for this alternative. South of 5400 South, the 7200 West Freeway Alternative would follow the same alignment as the 5800 West Freeway Alternative in an area that is mostly undeveloped. A review of the available data showed no environmental justice communities along the alternative south of 5400 South.

Along the 7200 West Freeway Alternative, a minority church on 7200 West just north of 3500 South was identified along with some scattered minority populations along 7200 West from SR 201 to 4100 South. A low-income community was also identified at about 7200 West 2600 South in Magna.

Community Cohesion Impacts

An analysis of project-related impacts to community cohesion is provided in Chapter 6, Community Impacts. The analysis in that chapter found that the

Magna and West Valley City areas are cohesive. The 7200 West Freeway Alternative would follow two existing edges: 7200 West and the political boundary between the township of Magna and West Valley City. The removal of homes along these edges would not divide any established neighborhoods or downtown districts. Because the alternative would follow the existing 7200 West road and city boundaries, it is not expected to further divide Magna or West Valley City. Further, the individual communities would continue to have the strong leadership, as shown by their community plans and through neighborhood involvement in church groups, that helps establish community cohesion. Because no impacts to community cohesion are anticipated from the 7200 West Freeway Alternative, there would be no disproportionately high and adverse effect on community cohesion for any environmental justice community.

Economic Impacts

In general, the 7200 West Freeway Alternative would have a beneficial economic impact to the traveling public by reducing travel times and would benefit all groups in the region, including environmental justice communities. It is expected that the 7200 West Freeway Alternative would result in a travel-time savings of \$124 million in 2030 compared to the No-Action Alternative (see Chapter 9, Economics).

This alternative would displace 26 businesses (23 commercial businesses and three industrial business). These businesses might employ low-income or minority populations. Although this alternative would disrupt the businesses themselves, their owners, and their employees, these businesses are types that can be relocated within the economic impact analysis area with little disruption to local commerce and employment. Any effects of relocation would be felt equally by all types of populations and would not result in disproportionate effects to low-income or minority workers.

Depending on market conditions and a number of other factors such as noise and visual impacts, the 7200 West Freeway Alternative could have a negative effect on adjacent property values and/or the time involved in selling a property. Although some effects might be negative, improved accessibility due to an improved transportation system is expected to have a positive effect on property values in the area as a whole. The properties belonging to environmental justice communities along 7200 West from SR 201 to 4100 South and at 7200 West 2600 South in Magna could have slightly reduced marketability because of noise impacts to the properties unless noise barriers are installed. However, overall, the noise and visual economic impacts associated with the 7200 West Freeway Alternative would affect the entire community, so no specific group (such as environmental justice populations) would experience disproportionately high and adverse effects.

Relocations

Under the 7200 West Freeway Alternative there would be 280 relocations, of which 253 would be single-family residences or mobile homes. One of the relocations would be a Spanish Jehovah's Witness church (3164 South 7200 West). Many attempts were made to contact this church to discuss the expected impacts, but no one from the congregation responded. The 7200 West Freeway Alternative would also change access to the LDS Bishop's Storehouse (3600 South 7200 West), LDS employment services, and Deseret Industries (a thrift store) by modifying the current two-lane road to a one-way frontage road. These businesses provide low-cost food, employment services, and thrift goods, respectively. According to representatives of these organizations, that they are destination service providers and the alternative would not affect the ability of patrons to access these locations (HDR 2005a, 2005b).

A review of the information provided by the Utah office of HUD, the Salt Lake County Housing Authority, the Salt Lake City Housing Authority, and the West Valley City Housing Authority showed that one house managed by the Utah office of HUD and one residential unit purchased by a minority would potentially be relocated. No homes from the low-income community at 7200 West 2600 South would be affected. Because the concentration of minority and low-income populations is slightly greater along the 7200 West Freeway Alternative than along the 5800 West Freeway Alternative, more of these populations would be affected. However, the residential relocations associated with the 7200 West Freeway Alternative would affect all types of households, and no specific group (such as environmental justice populations) would experience disproportionately high and adverse residential relocation impacts.

Transportation Impacts

The transportation impacts from the 7200 West Freeway Alternative would be the same as those from the 5800 West Freeway Alternative.

Air Quality Impacts

As discussed in Chapter 12, Air Quality, the 7200 West Freeway Alternative would not cause air quality standards to be exceeded, including standards for CO. Future MSAT emissions are expected to decrease as a result of technological and regulatory changes (See the section titled Air Quality Impacts on page 7-23 for more information.) Because CO emissions would be below the NAAQS and because overall vehicle air emissions would be distributed along the entire MVC alternative, there would be no disproportionately high and adverse effect on any one specific population, including environmental justice communities.

Noise Impacts

Under the 7200 West Freeway Alternative, about 763 multi-family or single-family residences along the alternative would experience noise levels that exceed applicable UDOT noise criteria (before noise mitigation measures are taken). Along the 7200 West Freeway Alternative, a minority church on 7200 West just north of 3500 South was identified along with some scattered minority populations along 7200 West from SR 201 to 4100 South. A low-income community was also identified at about 7200 West 2600 South in Magna. In these areas, about 550 homes, some of which might not be environmental justice households, would have noise levels that exceed UDOT's noise criteria (before noise mitigation measures are taken). Although most of the low-income and minority populations are scattered throughout the area, this alternative would have a greater noise impact on environmental justice communities than would the 5800 West Freeway Alternative. However, given the overall economic and racial composition of the area adjacent to 7200 West, no specific group (such as environmental justice populations) would experience disproportionate effects.

Water Quality Impacts

As discussed in Chapter 14, Water Quality, the 7200 West Freeway Alternative would not cause adverse impacts to water quality. Because there would be no project-related water quality impacts, there would be no disproportionately high and adverse effect on any environmental justice community.

Combined Impacts of 7200 West Freeway and 5600 West Transit Alternatives

7200 West Freeway Alternative with Dedicated Right-of-Way Transit Option

Community Cohesion Impacts. As discussed above for the Dedicated Right-of-Way Transit Option and the 7200 West Freeway Alternative, there would be no disproportionately high and adverse effect on community cohesion for any environmental justice community from either of these transportation improvements individually. Because the Dedicated Right-of-Way Transit Option would likely improve community cohesion and because no disproportionately high and adverse effects from the 7200 West Freeway Alternative are expected, the combined improvements would not have a disproportionately high and adverse effect on community cohesion for any environmental justice community.

Economic Impacts. The combined economic impacts to environmental justice communities for the 7200 West Freeway Alternative with Dedicated Right-of-

Way Transit Option would be the same as those for the 5800 West Freeway Alternative with Dedicated Right-of-Way Transit Option.

Relocations. Individually, neither the 7200 West Freeway Alternative nor the Dedicated Right-of-Way Transit Option would have a disproportionately high and adverse effect on relocations for any environmental justice community. Because there would not be any residential relocations with the transit option, the addition of this impact to the relocations from the 7200 West Freeway Alternative would not result in a disproportionately high and adverse effect on any environmental justice community.

Transportation Impacts. Combined with the 7200 West Freeway Alternative, the Dedicated Right-of-Way Transit Option would improve traffic congestion compared to the No-Action Alternative throughout the transportation impact analysis area. This would benefit all groups in the environmental justice impact analysis area, including environmental justice groups. Therefore, there would be no disproportionately high and adverse effect on any environmental justice community.

Air Quality Impacts. Combined, the 7200 West Freeway Alternative and the Dedicated Right-of Way Transit Option would not cause air quality standards to be exceeded. Because CO emissions would be below the NAAQS and because overall vehicle air emissions would be distributed along the entire MVC alternative, there would be no disproportionately high and adverse effect on any one specific population, including environmental justice communities.

Noise Impacts. The 7200 West Freeway Alternative and the Dedicated Right-of-Way Transit Option are separated enough that they would not combine to increase noise levels in the surrounding neighborhoods. Therefore, the impacts to all communities, including environmental justice communities, would consist of the impacts from either the freeway alternative or the transit option.

Water Quality Impacts. As discussed in Chapter 14, Water Quality, none of the action alternatives would cause any impacts to water quality. Because there would be no project-related water quality impacts, there would be no disproportionately high and adverse effect on any environmental justice community from the 7200 West Freeway Alternative with Dedicated Right-of-Way Transit Option.

7200 West Freeway Alternative with Mixed-Traffic Transit Option

The environmental justice impacts from the 7200 West Freeway Alternative with Mixed-Traffic Transit Option would be the same as those from the 5800 West Freeway Alternative with Dedicated Right-of-Way Transit Option.

7200 West Freeway Alternative with Tolling Option

The general impacts of tolling on environmental justice communities for the 7200 West Freeway Alternative with Tolling Option would be the same as those from the 5800 West Freeway Alternative with Tolling Option. The quantitative analysis for the 7200 West Freeway Alternative with Tolling Option is provided below.

Availability of Benefits to Low-Income Users

The impacts to environmental justice communities from the 7200 West Freeway Alternative with Tolling Option would be the same as those from the 5800 West Freeway Alternative with Tolling Option where the alternatives are the same south of 5400 South. With the 7200 West Freeway Alternative, environmental justice populations north of 5400 South could use the following alternate routes:

- 7200 West Frontage Road. Residents could use the planned frontage road (from SR 201 to 4100 South) along 7200 West to travel the 2 to 3 miles to SR 201 from 3500 South and 4100 South, respectively. Using the frontage road would result in an additional 2 to 4 minutes of travel time compared to using the MVC to travel the short distance to SR 201.
- **5600** West and Adjacent Areas. Environmental justice populations in the area of 5600 West would not likely use the MVC to travel north, northeast, or east since the 7200 West Freeway Alternative is west of the area and this route would result in out-of-direction travel. The route would also likely result in greater travel times than heading north the 2 to 7 miles on 5600 West to SR 201 or I-80.

As with the 5800 West Freeway Alternative with Tolling Option, the greatest impacts from tolling would be experienced in the communities in the southern part of Salt Lake County, an area that does not contain environmental justice communities.

As noted on page 7-29 for the 5800 West Freeway Alternative with Tolling Option, a major determining factor for the use of tolled facilities is time, not income. As with the 5800 West Freeway Alternative, residents of the area around the 7200 West Freeway Alternative also have alternate options for traveling through the communities in the environmental justice impact analysis area. Tolling of the 7200 West Freeway Alternative would not result in disproportionately high and adverse effects on environmental justice communities.

Toll Diversion Effects

The expected toll diversion effects from the 7200 West Freeway Alternative with Tolling Option would be similar to those from the 5800 West Freeway Alternative with Tolling Option except that the level of service on the segment of 5600 West from SR 201 to I-80 would decrease from LOS C to LOS D. This area is industrial, and no residential areas would be affected by the increase in traffic.

7.4.4 Utah County Alternatives

In Utah County, three alternatives are under consideration: the Southern Freeway Alternative, the 2100 North Freeway Alternative, and the Arterials Alternative. In addition, a tolling option was evaluated for each Utah County alternative. Impacts under each combination of alternatives and options are discussed in the following sections.

Data from the 2000 Census data, the local housing authorities, and Lehi City indicated that there are few minority or low-income populations near the proposed alternatives in Utah County. The census data demonstrated that the percentages of minority and low-income populations in the cities were below the Utah County averages except in Pleasant Grove, which had a percentage of racial minorities of 2.74% compared to Utah County with 2.48%. At the census tract level, there were no percentages of minority populations above 7.9%, and only four tracts (out of 20 tracts in the Utah County portion of the impact analysis area) exceeded the Utah County average of 10.71% for low-income populations.

A review of the low-income and minority data for subsidized housing and service providers found three minority residents within 0.5 mile of the alternatives. Based on the census and other data used, it has been determined that there is a very small percentage of low-income and minority populations in the impact analysis area in Utah County, and these are well distributed with few located near the proposed alternatives. As stated in Section 7.3.4, Utah County, the following low-income households are the only environmental justice communities in the Utah County portion of the environmental justice impact analysis area:

- Mixed housing near Thanksgiving Point in the Mayflower Harbor and Pilgrim's Landing developments in Lehi
- Mobile-home parks at 55 W. State Street, 400 W. State Street, and 900 N. State Street in Lehi
- 2100 North near I-15 in Lehi
- Center Street between 700 South and 900 South in Lehi

Because the communities are distributed throughout the area and do not represent concentrations of environmental justice populations, none of the Utah County alternatives (including the tolling options) would cause a disproportionately high and adverse effect on any environmental justice population in the Utah County portion of the environmental justice impact analysis area.

7.4.4.1 Southern Freeway Alternative

As described in Chapter 2, Alternatives, this alternative would consist of a freeway extending from the Utah County line to Interstate 15 (I-15) at Lindon.

None of the identified environmental justice communities listed in Section 7.4.4, Utah County Alternatives, are located near or along the Southern Freeway Alternative. Because no environmental justice populations are present, the Southern Freeway Alternative would not cause a disproportionately high and adverse effect on any environmental justice population.

Southern Freeway Alternative with Tolling Option

This option would have the same impacts as the Southern Freeway Alternative.

7.4.4.2 2100 North Freeway Alternative

As described in Chapter 2, Alternatives, this alternative would consist of a freeway extending from the Utah County line to State Route (SR) 73 in Saratoga Springs and a lateral freeway extending east along 2100 North to I-15 in Lehi.

Under the 2100 North Freeway Alternative, the MVC would connect to I-15 at about 2100 North in Lehi. There are three low-income residences within 0.5 mile of the proposed freeway ramps at this interchange. However, these three residences would experience the same level of impact as all other area residents and would not be disproportionately affected by the 2100 North Freeway Alternative. The 2100 North Freeway Alternative would not have a disproportionately high and adverse effect on environmental justice populations in the area.

2100 North Freeway Alternative with Tolling Option

This option would have the same impacts as the 2100 North Freeway Alternative.

7.4.4.3 Arterials Alternative

None of the identified environmental justice communities listed in Section 7.4.4, Utah County Alternatives, are located near or along the Arterials Alternative (the three low-income residences near 2100 North and I-15 are outside the 0.5-mile area that would likely experience project-related impacts from the 2100 North arterial). Because no environmental justice populations are present, the Arterials Alternative would not cause a disproportionately high and adverse effect on any environmental justice population.

Arterials Alternative with Tolling Option

This option would have the same impacts as the Arterials Alternative.

7.4.5 Mitigation Measures

Because no disproportionately high and adverse effects to environmental justice communities are anticipated from any of the proposed alternatives, no mitigation is required.

7.4.6 Cumulative Impacts

Cumulative impacts were analyzed for local and regionally important issues (farmlands, air quality, water quality, and ecosystems) as developed with resource agencies and the public during scoping. See Chapter 25, Cumulative Impacts, for a more detailed discussion of cumulative impacts.

7.4.7 Summary of Impacts

No disproportionately high and adverse impacts to environmental justice populations have been identified for any of the proposed alternatives in Salt Lake County or Utah County, either individually or combined.

7.5 References

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- 2004a Environmental Justice Technical Memo.
- 2004b Meeting notes with the Utah State Office of Pacific Island Affairs regarding minority populations in the MVC study area. June 23.
- 2004c Meeting notes with the Utah State Office of Hispanic Affairs regarding minority populations in the MVC study area. July 7.
- 2004d Meeting notes with Chamber West regarding minority populations in the MVC study area. June 24
- 2004e Meeting notes with Alliance Community Services regarding minority populations in the MVC study area. July 2.
- 2004f Meeting notes with Centro de la Familia regarding minority populations in the MVC study area. July 12.
- 2004g Meeting notes with the Utah State Office of Black Affairs regarding minority populations in the MVC study area. June 22.
- 2004h Meeting notes with The Hawaiian Group regarding minority populations in the MVC study area. June 30.
- 2004i Meeting notes with the Samoan Group regarding minority populations in the MVC study area. June 30.
- 2004j Meeting notes with the Utah State Office of Asian Affairs regarding minority populations in the MVC study area. June 22.
- 2004k Meeting notes with the Utah Department of Community and Economic Development regarding subsidized housing in the MVC study area. June 30.
- Meeting notes with the Provo Redevelopment Agency regarding minority and low-income populations in the MVC study area. June 30.
- 2004m Meeting notes with the City of American Fork regarding low-income and minority populations in the MVC study area. June 30.
- 2004n Meeting notes with Lehi City regarding low-income and minority populations in the MVC study area. June 30.
- 2004o Meeting notes with the West Jordan Economic Development Office regarding low-income and minority populations in the MVC study area. July 7.
- 2005a Meeting notes with the Magna Deseret Industries regarding services provided in the MVC study area. October 25.
- 2005b Meeting notes with LDS Employment Services in Magna regarding services provided in the MVC study area. November 2.

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