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# 4.3 Environmental Justice Consequences

#### INTRODUCTION

This section identifies minority or low-income populations that may reside in the study area. It examines the issues, impacts and benefits associated with the proposed alternatives, and determine whether or not the proposed alternatives would cause disproportionately high and adverse human health and environmental impacts on these communities. This analysis is required in compliance with Executive Order 12898, described in the following section.

#### 4.3.1 AFFECTED ENVIRONMENT

#### 4.3.1.1 REGULATORY BACKGROUND

Executive Order 12898, Federal Actions to Address Environmental Justice in Minority and Low-Income Populations, signed on February 11, 1994, directs federal agencies to take the appropriate and necessary steps to identify and address disproportionately high and adverse human health or environmental effects of federal projects and programs on minority and low-income populations to the greatest extent possible and permitted by law.

Executive Order 12898 (E.O. 12898) was enacted to reinforce Title VI of the Civil Rights Act of 1964 which states, "No person in the United States shall, on the grounds 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." Subsequent Orders at the state and federal level, including DOT Order 5610.2 Order to Address Environmental Justice in Minority Populations and Low-Income Populations (U.S. DOT 1997) and FHWA Order 6640.23 Actions to Address Environmental Justice in Minority Populations and Low-Income Populations (FHWA 1998), have reinforced the directives outlined in E.O. 12898.

On October 11, 2005, the Colorado Department of Transportation issued guidelines to assist in interpreting Executive Order 12898, entitled CDOT's *Title VI and Environmental Justice Guidelines for NEPA Projects Rev. 3*. This document serves as internal guidance only. The guidelines provide generalized information describing the process to be used for environmental justice analysis, the tools to be used in the public involvement program, the data to be presented in the Affected Environment section of the document, descriptions of impacts to be evaluated, and mitigation possibilities.

#### 4.3.1.2 METHODOLOGY FOR IDENTIFYING LOW-INCOME OR MINORITY POPULATIONS

Several methods were used to identify the location of the minority and low-income populations in the study area. Data from the 2000 U.S. Census of Population and Housing (U.S. Census) were used to obtain information about the location of the low-income and minority population at the smallest geographic unit possible; at the census block level for minority identification, and at the census block-group level for low-income identification.¹ Community Development Block Grant (CDBG) information was also used to identify the location of low-income populations. Project team members had several phone conversations with local planners, housing authorities, and health and human services providers from the local communities. Field observation was also initiated early in the process in order to gain a better awareness of the "sense of place" that might be missed by census data.

**Environmental Justice Consequences** 

<sup>&</sup>lt;sup>1</sup> The census block is the smallest geographic unit for which the U.S. Census Bureau tabulates 100 percent data. It is the smallest subdivision of a census tract. Many blocks correspond to individual city blocks bounded by streets, but in some cases, especially in rural areas, they may include many square miles and may have some boundaries that are not streets.

The census block group is a cluster of census blocks within a census tract (or groups of blocks). Block groups generally contain between 600 and 3,000 people, with an optimum size of 1,500 people. Block groups never cross boundaries of states, counties, or census tracts.



# MINORITY POPULATIONS

Minority populations are described by race and ethnicity using data from the U.S. Census at the census block level. As defined in FHWA Order 6640.23, a minority is a person who is Black, Hispanic, Asian American, American Indian, or Alaska Native. It is important to note that Hispanic or Latino heritage is accounted for as an ethnicity in census data and is not listed as a racial category. Respondents in the U.S. Census could select both ethnicity as well as a racial category (e.g. Hispanic/Latino Origin and African American, or Hispanic/Latino Origin and White). For purposes of this analysis, the race and ethnicity are both considered and are compared to minority population averages at the county level. Colorado has a total minority population of 25.5 percent, while the minority populations in Jefferson County and Boulder County are approximately 15 percent and 16 percent, respectively (see **Table 4.3-1**)

Table 4.3-1 Minority Population within the Study Area

Location	Total Population	Minority Population	Percent Minority
Jefferson County	527,056	79,585	15.1
Boulder County	291,288	47,771	16.4
Colorado	4,301,261	1,096,821	25.5

Source: U.S. Census Bureau, 2000.

The location of census blocks where the proportion of minority persons is at or above the county proportion (i.e., greater than or equal to 15.1 percent for Jefferson County and greater than or equal to 16.4 percent for Boulder County) is presented (see **Figure 4.3-1**). In census blocks that cover a large geographic area, minority populations may be widely dispersed among the block or they may be concentrated in a small portion of the block. Data on the exact location of minority populations is not provided by the U.S. Census Bureau or any regional or local jurisdictions in the study area.

In general, the census blocks with higher than average concentrations of minority populations in the study area are located in Golden, between South Golden Road and I-70; in Arvada, east of Indiana Street; and in Wheat Ridge, east of I-70 and Ward Road. There are 81 census blocks immediately adjacent to the roadways being evaluated for improvements. Fourteen of these contain higher than average concentrations of minority populations. Census blocks with higher than average concentrations of minority populations will be evaluated for disproportionately high and adverse effects in **Section 4.3.2** 

BROOMFIELD COUNTY BOULDER COUNTY JEFFERSON Rocky Flats National **ADAMS** Wildlife Refuge COUNTY Raisto 76 North Table Mountain DENVER COUNT South Table Mountain Legend Study Area DEIS Alternative Routes Minority Populations Counties S Lakes --- Streams / Interstate → Other Highways

Figure 4.3-1 Minority Population within Study Area by Census Block

Source: U.S. Census Bureau, 2000; Compiled by FHU, 2006.



# LOW-INCOME POPULATIONS

The term "low-income" includes persons whose household income is at or below the US Department of Health and Human Services (HHS) poverty guidelines. A different threshold (e.g., US Census Bureau poverty threshold or Community Development Block Grant income guidelines) may be utilized as long as it is not selectively implemented and is inclusive of all persons at or below the HHS poverty guidelines. For purposes of privacy, the census block group is the most detailed geographic level of data that displays income information. CDOT's recommended approach for determining low-income populations in the study area is to utilize census data and county specific income thresholds set annually by the U.S. Department of Housing and Urban Development (HUD) for distribution of Community Development Block Grant (CDBG) funds for Section eight housing assistance. In accordance with CDOT guidance, the HUD income threshold used to determine which areas are targeted for analysis is 30 percent of the Area Median Income (AMI).

According to 2005 HUD information, the average household size in both Boulder and Jefferson Counties is approximately 2.5 persons. The income limit for 30 percent of area median income (AMI) is \$22,122 for the average household in Boulder County, and \$18,318 for the average household in Jefferson County. Since 2000 census, income data are divided into increments of \$5,000, any household (regardless of the number of people) with an income less than \$25,000 is considered low-income in Boulder County. Likewise, any household with an income less than \$20,000 is considered low-income in Jefferson County.

Approximately 14 percent of households in Boulder County are below the low-income threshold (i.e., 30 percent of the AMI), and 22 percent of households within Jefferson County are below the threshold. The locations of census block groups where the proportion of households below the low-income threshold is at or above the county proportion (i.e., greater than or equal to 14 percent for Boulder County census block groups and greater than or equal to 22 percent for Jefferson County census block groups) is depicted (see **Figure 4.3-2**).

In general, the highest concentrations of low-income populations in the study area are located in Golden, between South Golden Road and I-70; in Arvada, east of Indiana Street; and in Wheat Ridge, east of I-70 and Ward Road. There are 28 census block groups immediately adjacent to the roadways being evaluated for improvements. Seven of these contain higher than average concentrations of low-income populations. Census blocks with higher than average concentrations of low-income populations will be evaluated for disproportionately high and adverse effects in **Section 4.3.2**.

### OTHER DATA SOURCES FOR MINORITY OR LOW-INCOME POPULATIONS

In addition to the U.S. Census and HUD data described above, other sources of information on minority and low-income populations in the study area were consulted. For instance, project analysts investigated the number of minority students at two schools in the study area, and the number of students at those schools that are eligible for federal free and reduced lunch programs. This analysis showed that the percentage of minority and low-income students that attend Bell Middle School is about the same as the percentage within the general population of Jefferson County. The percentage of minority students and the percentage of low-income students that attend Mitchell Elementary School are both slightly less than the percentage within the general population of the county. These data are consistent with the information gathered from the census data and HUD data. Project analysts also researched additional locations of low-income populations by contacting local agencies and conducting a search of the HUD online database. The information obtained from these sources confirmed the locations determined by census and HUD data.



BROOMFIELD COUNTY BOULDER COUNTY COUNTY Rocky Flats National **ADAMS** Wildlife Refuge COUNT 76 North Table Mountain DENVER COUNT 70 South Table Legend L Study Area DEIS Alternative Routes Low Income Populations Counties S Lakes \_ Streams ✓ Interstate Other Highways

Figure 4.3-2 Low-Income Population within Study Area by Census Block Group

Source: U.S. Census Bureau, 2000; U.S. Department of Housing and Urban Development, 2005; Compiled by FHU, 2006.



#### 4.3.1.3 Specialized Public Involvement and Community Outreach Efforts

Specialized outreach to low-income and minority populations was undertaken as part of the public involvement process to gather comments and concerns regarding the project. Flyers were delivered to locations throughout the study area where low-income or minority populations might have access to them. These locations included libraries, health facilities low income housing, senior citizen organizations, small businesses, and human services offices. Among these locations were the following places:

Wheat Ridge Senior Center Golden Terrace Village

Orchard Valley Apartments Mitchell Elementary School

Newgate Apartments Bell Middle School

44th Avenue Apartments Summit View Village Apartments

Kipling Village Apartments

N J Senior Recreation Center

Boulder Senior Services

Senior Volunteer Center

Westminster Senior Center Asian Rocky Mountain Indian Chamber of Commerce

Broomfield Senior Center Denver Hispanic Chamber of Commerce

Louisville Senior CenterBlack Chamber of CommerceBoulder Senior CenterChamber of the AmericasCanyon Gate ApartmentsLafayette Senior Center

Mountainside Estates Mobile Home Park North Jeffco Senior Recreation Center

Pleasant View Mobile Home Park Broomfield Senior Center

Golden Hills Mobile Home Park

Outreach has also occurred through Spanish-language newspapers, newsletters, flyers and mailings which described the project process and announced upcoming meetings. A Spanish language translator has been available for the project public meetings and speakers were offered for group meetings. Additionally, portions of the project web site are in Spanish, and advertisements promoting public meetings were created in Spanish and placed in Spanish-language weekly newspapers including *El Hispano*, *El Reportero*, and *La Voz Nueva*. Also, press releases announcing public meetings were drafted in Spanish and distributed to Spanish-language media contacts (see **Table 4.3-2**).



Table 4.3-2 Spanish-Language Media Contacts

Television	Radio	Print
KACT—TV	KBNO	El Hispano
KBDI	KJMN	El Semanario
KCEC	KBNO 1280	El Heraldo de Colorado
KMAS	KVVS La Nueva Ley 1170 AM	La Voz Hispana de Colorado
KCEC Univision Canal	KPVW—FM	De Hecho
50/Telefutural Canal 14	KAJX	El Reportero
KMAS Telemundo	KDNK	Millenium Press
Azteca America—Colorado	KDINK	Millenium Deportes
		Impacto magazine
Empleo Ahora TV		
Colorado Aqui y Ahora		El Pueblo Católico
Al Dia con Nelvis Alvarez		Fin de Semana
		Innovación
		Extra Americas newspaper
		Mi Pueblo
		El Comerciante de Colorado
		El Cambio
		Empleo Ahora
		Impacto Colorado
		El Inmigrante
		Paginas Amarillas de Colorado
		Paginas Amarillas La Solución
		Art Exhibit Showcase magazine
		Xtremo
		Graci Y Verdad
		EasyChair magazine—Edición Internacional
		Zona Deportiva
		Ajuaa
		Nuestro Hogar
		Revista de Ahorros Mercado
		Mundo Mujer
		Guía de Casa de Colorado
		Hispania News
		Imagen Latina Spanish magazine
		Fin de Semana—Zona Norte/ Mercados/Asi es
		mi tierra
		LatiNoticias
		La Tribuna
		Detalles
		Hispano Americano
		La Mission newspaper
		Caminos de Southern Colorado newspaper
		El Valle Hispanic Long
ĺ		Pine River Times
		rine river times

Source: Compiled by PRACO Public Relations Advertising Co., 2006



Small group meetings were held at various times throughout the study area. Minority and/or low-income persons may have attended those meetings, however attendees were not asked to identify their ethnicity or income categories. The meetings are listed in the public involvement chapter of this document.

Focused outreach efforts have been pursued in several locations in the study area where minority or low-income populations may live or work as a result of field investigations, contacts with local stakeholders, and additional technical analysis, These efforts have included the following contacts:

- Canyon Gate Apartments
- Mountainside Estates Mobile Home Park
- Pleasant View Mobile Home Park
- Golden Hills Mobile Home Park
- Golden Terrace Village Mobile Home Park
- Summit View Village Apartments
- Briarwood Restaurant
- Mitchell Elementary School
- Bell Middle School
- 26 businesses in the 44th/McIntyre and 48th/McIntyre vicinities

Information obtained from these contacts assisted project analysts in identifying specific locations in the study area where further outreach may be necessary. Of the ten sites, only Mitchell Elementary School was found to be affected by the proposed project (see **Section 4.2**). As a result, flyers containing information about the project and announcing a public meeting were delivered to the school. In addition, an invitation to request speakers, presentations, or information was provided to the school in both Spanish and English. No further actions were taken, as no requests for further information or meetings were made.

The community outreach and public involvement programs have actively and effectively engaged the affected community by seeking opportunities to reduce cultural, language, and economic barriers to participation.

The proposed action will also comply with applicable federal requirements promulgated in accordance with Executive Order 13166, Improving Access to Services for Persons with Limited English Proficiency (August 11, 2000), which requires that federal programs and activities be accessible to persons with limited English language proficiency.

The proposed action will be developed in accordance with Title VI of the Civil Rights Act of 1964, which provides that no person in the United States shall, on the grounds 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.



# 4.3.2 Environmental Consequences

As detailed in the description of the affected environment, the population of the study area is characterized by relatively modest proportions of both minority and low-income persons. There are approximately 15 percent and 16 percent minority, and about 22 percent and 14 percent low-income persons in Jefferson and Boulder counties respectively. From the GIS mapping provided as part of the affected environment discussion, it appears that these population groups are dispersed in pockets throughout the study area (see **Figure 4.3-1** and **Figure 4.3-2**) in Golden, between South Golden Road and I-70; in Arvada, east of Indiana Street; and in Wheat Ridge, east of I-70 and Ward Road.

The discussion of environmental justice consequences that follows has been prepared in accordance with the applicable guidance for addressing environmental justice, including the U.S. DOT Executive Order 5610.2 (USDOT 1997), FHWA Order 6640.23 (FHWA 1998), FHWA Western Resource Center Interim Guidance (FHWA 1999), and the Colorado Department of Transportation's Title VI and Environmental Justice Guidelines for NEPA Projects – Rev.3 (October 11, 2005). Consistent with this guidance, this analysis determines: if any disproportionately high and adverse effects on minority and low-income population groups would occur, taking into account the following considerations:

- Whether, after accounting for impact avoidance and minimization efforts and offsetting benefits, the net
  adverse effects of any of the alternatives would be predominately borne by a minority or low-income
  population, or
- Whether, after accounting for impact avoidance and minimization efforts and offsetting benefits, the net
  adverse effects of any of the alternatives would be appreciably more severe or greater in magnitude to
  minority or low-income populations compared to the effects on non-minority or non-low-income
  populations.

Thus, both a quantitative and qualitative assessment of impacts to minority or low-income populations is undertaken. The quantitative approach assesses impacts to minority and low-income populations and compares these to non-minority and non-low-income populations. The qualitative approach assesses whether there is evidence that the intensity of impacts to minority or low-income populations compared to non-minority and non-low-income populations would be substantially different.

The effects on the general population (including minority and low-income populations) that would result from the No Action Alternative and the build alternatives are summarized in this document (see Section 4-26). The mitigation measures that have been recommended to avoid or minimize adverse effects are also summarized (see Section 4-27). As this material shows, no adverse effects on the general population (including minority or low-income populations) from any of the alternatives have been documented for the following resources: Air Quality, Economic Conditions, Farmland, and Floodplains. Because adverse effects would not occur, no further environmental justice analysis has been undertaken with regard to these resources. However, adverse impacts have been identified under one or more alternatives for the following resources that could also directly affect minority or low-income populations: Transportation, Land Use, Social Conditions, Noise, and Parks and Recreation Areas (see Chapter 3, Sections 4.1, 4.2, 4.7, and 4.17). The following analysis examines the ways in which the impacts to these resources affect minority and low-income populations. A determination of whether any alternative results in disproportionately high and adverse effects is then made in Section 4.3.2.1.

#### NO ACTION ALTERNATIVE

Given the relatively limited scope of the No Action Alternative, impacts would be less substantial than the effects described below for the build alternatives. However, certain adverse effects on minority or low-income populations in the study area would arise as a result of transportation needs left unmet by the No Action Alternative. These effects would include direct impacts and indirect effects that are typically caused by traffic congestion and impaired mobility, including increased air pollution and noise, longer travel times, neighborhood traffic intrusion, deteriorating safety conditions, and lengthened emergency response times.



Because these effects would not be concentrated in any particular location, both minority and low-income and non-minority and non-low-income populations would be affected. Therefore, impacts associated with the No Action Alternative would not be predominantly borne by a minority or low-income population. Nor would these impacts be appreciably more severe or greater in magnitude than those experienced by non-minority or non-low-income populations.

#### FREEWAY ALTERNATIVE

#### **Transportation**

The Freeway Alternative would result in a total of seven intersections operating at LOS F in 2030. Of the total affected intersections, three would be in or adjacent to areas that have concentrations of minority and low-income residents. These low proportions suggest that it would be unlikely that the intersection impacts would be borne predominantly by minority or low-income populations.

# **Land Use**

This alternative would convert 807 acres of land from an existing use to a transportation use, requiring a total of three residential displacements and two business displacements. Of the total displacements, one residential displacement and one business displacement would be in or adjacent to census blocks with higher than average populations of minorities. There would be no residential displacements and no business displacements in or adjacent to census block groups with a higher than average number of low-income households. The residential displacement that would impact minorities is located in unincorporated Jefferson County in a census block that contains twelve persons (likely three to four households). Two of the residences within this block would not be impacted because they are located approximately three quarters of a mile from the freeway alignment.

The impacted business, located within the Canyon Point Commercial Center, was further assessed through field surveys and contact with local planning officials to determine if it is owned by a member of a minority group and if employees of the affected business are members of a minority group. No additional information suggested that the owner of the affected business is a member of a minority group. The impacted business is located across the street from the Canyon Point Cottages, which according to census data has a higher than average population of minorities. While residents of the Canyon Point Cottages are likely to patronize this business, there is no evidence to suggest that the affected business has any particular connection to the Canyon Point Cottages or provides employment, goods and/or services uniquely important to this minority population group. The Canyon Point Cottages is contained within a census block that has a population of approximately 213 persons (38 minorities). Surrounding this block, are several other large residential areas with a combined population of well over 1,000 persons that do not contain minority populations. These residents equally patronize this business and would be equally affected by its' displacement.

#### **Social Conditions**

See discussion of displacement impacts above under Land Use. This alternative would also result in a total of 12 improved access points (i.e., intersections, interchanges, driveways) and two removed access points. Of the total affected access points, three would be improved and two removed in or adjacent to areas with concentrations of minorities and low-income households. At Heritage Road, 19th Street, and SH 58 existing intersections with SH 93 would be upgraded to interchanges. The minority and low-income population near Heritage Road is interspersed with non-minority populations that reside in the Village at Golden Ridge/Eagle Ridge neighborhood. A large number of households within these neighborhoods fall within census blocks or block groups that do not contain minority or low-income populations. The minority and low-income populations near 19th Street consists primarily of student housing associated with the Colorado School of Mines. This block is adjacent to a large neighborhood (Parfet Estates) that does not contain a minority or-low-income population. A concentration of minority and low-income households are located within the Canyon Point Cottages and Canyon Point Villas, north of SH 58. These neighborhoods are surrounded by large non-minority, non-low-income residential areas that also utilize this access point. Access would be removed at Washington Avenue and Iowa Street, which would require out of direction travel for minority and low-income residents of the Canyon Point Cottages and Canyon Point Villas. Residents would have to



travel approximately half of a mile to the north or south to access the interchange at Golden Gate Canyon Road or SH 58. This out of direction travel would also be required for non-minority and non-low-income residents from the large residential areas surrounding Canyon Point.

The potential loss of access should be mitigated by providing frontage roads. Effects on emergency response, schools, neighborhood integrity, and community cohesion would be generally similar for all population groups. As this analysis shows, out-of-direction travel and rerouting anticipated to result from these changes in circulation would be experienced by minority and low-income populations as well as non-minority and non-low-income populations.

#### **Noise**

This alternative would result in adverse noise effects at 295 receivers. Of these, 236 would exceed the Noise Abatement Criteria (NAC) and 59 others would increase by 10dBA or more over existing conditions without reaching the relevant NAC. Of the total sites affected, 64 receivers would be located in census blocks with concentrations of minorities. Fifty-three receivers would be located in census block groups with concentrations of low-income households. Thus, noise is not expected to affect minority or low income populations in a disproportionate manner.

# Parks and Recreation Areas

The Freeway Alternative would affect one park, six trails, and three recreation areas, two of which are located either adjacent to or within minority or low-income communities. These include a privately owned and operated golf course and a fossil viewing area. The golf course is adjacent to the southernmost portion of Rock Creek Ranch in Superior, which is approximately 17 percent minority. Although the golf course would remain in operation, portions of the cart path and one fairway would be directly impacted by the Freeway Alternative. It is likely that minority residents living within this portion of Rock Creek Ranch utilize this golf course. According to 2000 Census data, approximately 60 census blocks make up the Rock Creek Ranch subdivision. Twenty of these contain a higher than average population of minorities. The portion of Rock Creek Ranch that does not contain minority populations has the majority of the subdivisions 8,800 residents. Therefore, impacts would be distributed among minority and non-minority Rock Creek residents that patronize the golf course.

The fossil viewing area is located within a census block group containing low-income populations. Impacts would be limited to the acquisition of 0.9 acres that is adjacent to the existing roadway alignment. General accessibility to parking and trailhead facility would be temporarily affected during construction. This area serves both low-income and non-low-income populations and is immediately adjacent to a golf course that would not be affected by the Freeway Alternative.

# **TOLLWAY ALTERNATIVE**

#### **Transportation**

The Tollway Alternative would result in a total of 11 intersections operating at LOS F in 2030. Of the total affected intersections, five would be in or adjacent to areas with concentrations of minority and low-income residents. With less than half of the affected intersections in minority or low-income areas, it is unlikely that impacts would be predominantly borne by low-income populations.

### Land Use

This alternative would convert 868 acres of land from an existing use to a transportation use, requiring a total of three residential displacements and seven business displacements. Of the total displacements, one residential displacement and six business displacements would be in or adjacent to census blocks with higher than average populations of minorities. There would be no residential displacements and no business displacements in or adjacent to census block groups with a higher than average number of low-income households. As with the Freeway Alternative, the residential displacement that would impact minorities is



located in unincorporated Jefferson County in a census block that contains twelve persons (likely three to four households). Two of the residences within this block would not be impacted because they are located approximately three quarters of a mile from the tollway alignment.

The six business displacements all occur from within the Canyon Point Commercial Center. The impacted businesses are located across the street from the Canyon Point Cottages, which census data shows has a higher than average population of minorities. Field surveys and contacts with local planning officials were conducted but provided no additional information suggesting that the owners and/or employees of the affected businesses are members of a minority group. While residents of the Canyon Point Cottages are likely to patronize these businesses, there is no evidence to suggest that the affected businesses have any particular connection to a minority community or provide employment, goods and/or services uniquely important to a minority population group. The Canyon Point Cottages is contained within a small census block with a population of approximately 213 persons (38 minorities). Surrounding this block are several other large residential areas with a combined population of well over 1,000 persons that do not contain minority populations. These residents equally patronize these businesses and would be equally affected by their displacement.

# **Social Conditions**

The discussion of displacement impacts above under Land Use (see **Section 4.1**). This alternative would result in a total of nine improved access points (i.e., intersections, interchanges, driveways) and no removed access points. Of the total affected access points, one would be improved adjacent to a census block with a concentration of minorities. This census block is located within unincorporated Jefferson County and contains twelve persons (likely three households). One residence will be displaced by the Tollway Alternative, and will therefore, not be affected by access changes. The two other residences within this block are located approximately three quarters of a mile from the tollway alignment. These households will benefit from having direct access to the tollway, when access in other areas is limited. The existing 64th Avenue would be widened to the east and west, improving mobility for these households.

There would be no improved access points and none removed in or adjacent to census blocks with concentrations of low-income households.

Effects on emergency response, schools, neighborhood integrity, and community cohesion would be generally similar for all population groups.

Financial access to a tolling facility is an issue that often emerges when addressing the impacts of express lanes. To use the new express lanes, tollway users would be required to pay for their travel. Current general-purpose (i.e., "free") lanes would remain free, but the imposition of a fee to travel these new tolled lanes may be considered an inconvenience, annoyance, or at worst, an increased financial burden. For economically disadvantaged persons (i.e., low-income populations and the subset of minority populations that are also low-income) toll payments could thereby impair their access to the transportation system. This could be due to obvious reasons (i.e., insufficient income), as well as to more subtle factors such as unavailability of credit cards, checking accounts, or cash savings to pay for electronic toll collection transponders. Fairness issues could also arise insofar as some low-income travelers would have to use non-toll facilities that would not offer the same transportation benefits as the tollway (e.g., reduced congestion and delay, improved travel time).

Comments received from the general public indicated a concern that a toll facility would be expensive to build and would result in high costs to utilize. The public stated that pricing would determine whether the toll road would reduce congestion on local roadways (if the price is set too high, local residents will be more inclined to use arterial roads). The potential for increased traffic on local roads was a related concern that was expressed about tolls. Although none of the comments indicated that the commenter would not be able to



pay for the toll due to economic hardship, several comments expressed the opinion that a tolled facility would cater to the wealthy. It is unknown whether these comments were from minority or low-income residents, since race and income data was not asked of meeting attendees.

There is presently no generally accepted understanding of the effects of tolling on transportation equity, however and methodologies to identify and measure such effects are not well established. Equity studies conducted on express lane projects implemented in California and Texas reveal that economically disadvantaged drivers use express lanes voluntarily and are not necessarily excluded, although more frequent use is often exhibited by higher-income drivers. Most users, even those from higher-income households, choose the express lanes judiciously when they need to benefit the most from reduced congestion. Currently free travel lanes on SH 93 and US 6 would be maintained in this area. Local roadways and regional arterials providing alternative routes would also be retained. In addition, improvements in circulation and mobility would benefit all motorists.

To make tolling more fair and equitable, if electronic tolling is included, methods are available to overcome issues with credit cards and account debits to permit the broadest opportunity to use toll facilities. This might entail providing alternative payment options for transponder purchases and toll replenishment using cash or employer-based payroll deductions.

#### **Noise**

This alternative would result in adverse noise effects at 128 receivers. Of these, 106 would exceed the NAC and 22 would increase by 10dBA or more over existing conditions without reaching the relevant NAC. Of the total sites affected, 37 receivers would be located in census blocks with concentrations of minorities. Twenty-three receivers would be located in census block groups with concentrations of low-income households. Thus, noise is not expected to affect minority or low-income populations in a disproportionate manner.

#### Parks and Recreation Areas

The Tollway Alternative would affect two parks, seven trails, and three recreation areas, three of which are located either adjacent to or within minority or low-income communities. These include the privately owned and operated golf course and fossil viewing area discussed for the Freeway Alternative as well as a park that is adjacent to the Canyon Point neighborhood west of the Iowa Street/SH 93 intersection. The Canyon Point residential area consists of approximately six census blocks, one of which contains a higher than average population of minorities. The census block with a concentration of minorities has a total population of 68 persons (16 minorities). The remaining portion of the neighborhood contains a population of approximately 850 persons (100 minorities). Therefore, impacts would be distributed among minority and non-minority Canyon Point residents that patronize this park.

#### REGIONAL ARTERIAL ALTERNATIVE

# **Transportation**

The Regional Arterial Alternative would result in a total of 11 intersections operating at LOS F in 2030. Of the total affected intersections, three would be in or adjacent to areas with concentrations of minority and low-income residents. With low proportions of the affected intersections in minority or low-income areas, it is unlikely that impacts would be borne predominantly by minority or low-income populations.

#### **Land Use**

This alternative would convert 694 acres of land from an existing use to a transportation use, requiring a total of six residential displacements and three business displacements. Of the total displacements, two residential displacements and one business displacement would be in or adjacent to census blocks with higher than average populations of minorities. There would be no residential displacements and no business displacements in or adjacent to census block groups with a higher than average numbers of low-income households. As with the Freeway Alternative, one of the residential displacements that would impact minorities is located in unincorporated Jefferson County in a census block that contains twelve persons (likely three to four households). Two of the residences within this block would not be impacted because they are



located approximately three quarters of a mile from the tollway alignment. The other residential displacement is located along SH 72 in rural unincorporated Jefferson County. The population of this census block is twelve persons (two are minorities). Acquisition of one home would also be required across from this residence in a census block that does not contain minority populations.

As with the Freeway Alternative, the impacted business is located within the Canyon Point Commercial Center, across the street from the Canyon Point Cottages, which census data shows has a higher than average population of minorities. While residents of the Canyon Point Cottages are likely to patronize this business, there is no evidence to suggest that the affected business has any particular connection to a minority community or provides employment, goods and/or services uniquely important to a minority population group. The Canyon Point Cottages is contained within a small census block with a population of approximately 213 persons (38 minorities). Surrounding this block are several other large residential areas with a combined population of well over 1,000 persons that do not contain minority populations. These residents equally patronize this business and would be equally affected by its' displacement.

#### **Social Conditions**

See discussion of displacement impacts above under Land Use. This alternative would result in a total of 17 improved access points (i.e., intersections, interchanges, driveways) and two removed access points. Of the total affected access points, three would be improved and one removed in or adjacent to areas with concentrations of minorities and low-income households. As with the Freeway Alternative, existing intersections at Heritage Road, 19th Street, and SH 58 would be upgraded to interchanges (for impacts, refer to the discussion under the Freeway Alternative).

Access would be removed at Iowa Street, which would require out of direction travel for minority and low-income residents of the Canyon Point Cottages and Canyon Point Villas. Residents would have to travel approximately half of a mile to the north or south to access the interchange at Golden Gate Canyon Road or SH 58. This out of direction travel would also be required for non-minority and non-low-income residents from the large residential areas surrounding Canyon Point. However, unlike the Freeway Alternative, access would be retained at Washington Avenue, limiting these impacts for all population groups.

The intersection at 64th Avenue would also be upgraded to an interchange. The intersection at 64th Avenue is adjacent to a census block with a concentration of minorities. This census block is located within unincorporated Jefferson County and contains twelve persons (likely three households). One residence will be displaced by the Regional Arterial Alternative, and will therefore, not be affected by access changes. The two other residences within this block are located approximately three quarters of a mile from the roadway. A new two lane frontage road on the west side of the alignment would provide access to the new facility. The existing 64th Avenue would be widened to the east and west, improving mobility for these households.

Effects on emergency response, schools, neighborhood integrity, and community cohesion would be generally similar for all population groups. As this analysis shows, out-of-direction travel and rerouting anticipated to result from these changes in circulation would be experienced by minority and low-income populations as well as non-minority and non-low-income populations.

#### **Noise**

This alternative would result in adverse noise effects at 124 receivers. Of these, 81 would exceed the NAC and 43 others would increase by 10dBA or more over existing conditions without reaching the relevant NAC. Of the total sites affected, 46 receivers would be located in census blocks with concentrations of minorities. Twenty-seven receivers would be located in census block groups with concentrations of low-income households. Thus, noise is not expected to affect minority or low-income populations in a disproportionate manner.



# Parks and Recreation Areas

The Regional Arterial Alternative would affect one park, five trails, and three recreation areas, two of which are located either adjacent to or within minority or low-income communities. These include the privately owned and operated golf course and fossil viewing area discussed for the Freeway Alternative (for impacts, refer to the discussion under the Freeway Alternative).

# COMBINED ALTERNATIVE (RECOMMENDED ALTERNATIVE)

#### **Transportation**

The Combined Alternative (Recommended Alternative) would result in a total of seven intersections operating at LOS F in 2030. Of the total affected intersections, two would be in or adjacent to areas with concentrations of minority and low-income residents. Given these proportions, it is unlikely that impacts would be predominantly borne by minority or low-income populations.

#### Land Use

This alternative would convert 900 acres of land from an existing use to a transportation use, requiring a total of 29 residential displacements and nine business displacements. Of the total displacements, eleven residential displacements and four business displacements would be in or adjacent to census blocks with concentrations of minorities. There would be no residential displacements and no business displacements in or adjacent to census block groups with concentrations of low-income households. As with the Freeway Alternative, one of the residential displacements that would impact minorities is located in unincorporated Jefferson County in a census block that contains twelve persons (likely three to four households). Two of the residences within this block would not be impacted because they are located approximately three quarters of a mile from the tollway alignment. The other residential displacements are located along Indiana Street/McIntyre Street. This area has a rural character with residential development spread out between agricultural uses and undeveloped land. South of SH 58 to the Indiana Street connection, there would be a total of 26 residential displacements. Fifteen of these would be located in areas that do not contain minority populations. Therefore, displacement impacts would be distributed among minority and non-minority households.

One of the business displacements would occur from within the Canyon Point Commercial Center. As discussed for the Freeway Alternative, there is no evidence to suggest that this business has any particular connection to a minority community or provides employment, goods and/or services uniquely important to a minority population group. The three other affected businesses are located along Indiana Street/McIntyre Street. These businesses consist of a nursery, breeding farm, and greenhouse. These businesses are dependent upon a rural environment, but are not connected to any particular neighborhood community. Field survey and contact with local planning officials did not reveal any additional information that might suggest that the owner or occupant of the affected businesses were members of a minority group or that these businesses employed minorities. However, due to the sensitive nature of the data, it is possible that minorities are employed by these and other businesses in this area.

# **Social Conditions**

See discussion of displacement impacts above under Land Use. This alternative would result in a total of 33 improved access points (i.e., intersections, interchanges, driveways) and two removed access points. Of the total affected access points, three would be improved and one removed in or adjacent to census blocks and block groups with concentrations of minorities and low-income households. As with the Freeway Alternative, existing intersections at Heritage Road, 19th Street, and SH 58 would be upgraded to interchanges (for impacts, refer to the discussion under the Freeway Alternative). Access would be removed at Iowa Street, which would require out of direction travel for minority and low-income residents of the Canyon Point Cottages and Canyon Point Villas. Residents would have to travel approximately half of a mile to the north or south to access the interchange at Golden Gate Canyon Road or SH 58. Out of direction travel would also be required for non-minority and non-low-income residents from the large residential areas surrounding Canyon Point. As with the Regional Arterial Alternative, access would be retained at Washington Avenue, limiting these impacts for all population groups. The potential loss of access would be mitigated by providing frontage roads.



Effects on emergency response, schools, neighborhood integrity, and community cohesion would be generally similar for all population groups. This alternative would require the acquisition of Arvada Fire Station #8 (6551 Indiana Street). Station 8 is primarily responsible for providing emergency services in an area bordered by 58th Avenue on the south, SH 72 on the north, Ward Road on the east, and SH 93 on the west. According to census data, there is one census block with a higher than average population of minorities in the vicinity of the fire station. However, this data is a bit misleading since the block contains three persons (one minority). In addition, several other non-minority residential neighborhoods are also located in the vicinity of the fire station and would be equally affected by its displacement.

Multiple parcels of undeveloped land are located within a quarter of a mile of the current site for Station 8. While it is impossible to predict with certainty whether this land will be available once a Recommended Alternative is selected and constructed, the City of Arvada is in the planning process to provide two new fire stations in the coverage area. A nearby location would allow the fire station to maintain its services, limiting impacts to the surrounding community.

For impacts associated with transportation equity refer to the discussion under the Tollway Alternative.

#### **Noise**

This alternative would result in adverse noise effects at 147 receivers. Of these, 108 would exceed the NAC and 39 others would increase by 10dBA or more over existing conditions without reaching the relevant NAC. Of the total sites affected, 42 receivers would be located in census blocks with concentrations of minorities. Thirty-seven receivers would be located in census block groups with concentrations of low-income households. Thus, noise is not expected to affect minority or low-income populations in a disproportionate manner.

#### Parks and Recreation Areas

The Combined Alternative (Recommended Alternative) would affect two open space areas, seven trails, and three recreation areas, two of which are located either adjacent to or within minority or low-income communities. These include the privately owned and operated golf course and a fossil viewing area discussed for the Freeway Alternative (for impacts, refer to the discussion under the Freeway Alternative).

# **CUMULATIVE EFFECTS (ALL BUILD ALTERNATIVES)**

The role that cumulative or multiple adverse exposures to environmental impacts from other past, present, and reasonably foreseeable projects in the area could play was considered as part of this environmental justice analysis. Given the robust level of local and regional growth, the study area has been and will continue to be affected by various transportation and development projects. It is highly probable that these projects have caused some inconvenience or annoyance to all segments of the community at various times, but there is no known, documented history of any environmental degradation from such projects that has affected minority or low-income population groups differently than the population as a whole.

#### 4.3.2.1 Offsetting Factors

In addition to the adverse effects that are summarized above, an assessment of environmental justice must also consider any factors that offset the adverse effects, such as impact avoidance, minimization, and mitigation measures and potential project benefits.

#### IMPACT AVOIDANCE AND MINIMIZATION EFFORTS

Comprehensive efforts have been undertaken to avoid and minimize adverse environmental effects as part of the ongoing alternatives development and planning. Throughout the alternatives screening process, the potential effects on minority and low-income communities were considered along with other measures in the decision to retain or eliminate alternatives. For example, the screening process included an inventory of both the housing and business acquisitions along each alignment, including properties in minority and low-income areas. Alternatives with potentially substantial effects on residences and businesses were removed. This approach to screening not only benefited minority and low-income areas, but also other properties in the general community. The remaining alternatives in the study have been further refined to minimize effects on



residences and businesses, including those in minority and low-income areas. As a final design is developed, the magnitude of impacts, including those in minority and low-income areas, will continue to be reduced to the extent possible.

#### BENEFITS OF THE PROPOSED ACTION

Certain benefits would be expected to result from implementation of the build alternatives in terms of environmental quality and improved operation of the local and regional transportation system (see **Chapter 1** and **Chapter 3**). Generally, benefits would include improved regional mobility; accommodation of existing and projected demand for the movement of people, goods, and services; improved travel reliability from reductions in travel delays; and enhanced intermodal opportunities to improve mobility. The Freeway Alternative, Regional Arterial Alternative, and Combined Alternative (Recommended Alternative) would reduce congestion on local streets, improving mobility for local residents. Although mobility improvements would be less for the Tollway Alternative and Combined Alternative (Recommended Alternative) (motorists may choose an alternate route to avoid the toll), they would offer the option for a reliable route, which would not be available under the No Action Alternative. The Combined Alternative (Recommended Alternative) is the only alternative that would improve mobility for motorists and residents along Indiana Street south of SH 72. These benefits would be distributed among all population groups, including minority and low-income populations.

# 4.3.2.2 Environmental Justice Determination

Based on the results of the supporting technical documents and other environmental analyses that have been concluded thus far, and taking into consideration the impacts to minority and low-income populations as compared to the general population described above, the efficacy of proposed mitigation measures and enhancements, and the offsetting benefits of the transportation facility, the following determinations can be made regarding disproportionately high and adverse effects on the minority and low-income population groups in the study area:

#### NO ACTION ALTERNATIVE

Direct impacts and indirect effects that would result from the No Action Alternative include traffic congestion and impaired mobility, including increased air pollution and noise, longer travel times, neighborhood traffic intrusion, deteriorating safety conditions, and lengthened emergency response times.

Because these effects would not be concentrated in any particular location, both minority and low-income and non-minority and non-low-income populations would be affected. Therefore, impacts associated with the No Action Alternative would not be predominantly borne by a minority or low-income population. Nor would these impacts be appreciably more severe or greater in magnitude than those experienced by non-minority or non-low-income populations. For these reasons it can be concluded that the No Action Alternative would not cause disproportionately high or adverse effects on minority or low-income populations.

#### FREEWAY ALTERNATIVE

Impacts associated with this alternative include residential and businesses displacements, increases in noise, acquisition from recreational facilities, access changes, and declining level of service at some intersections. These impacts would affect both minority and low-income populations and non-minority and non-low-income populations. Minority and low-income populations would not experience a greater number of impacts than non-minority or non-low-income populations. Nor would these impacts be more severe for minority or low-income populations.



One of the two impacted businesses is adjacent to a minority population. While this population is likely to patronize this business, there is no evidence to suggest that the affected business has any particular connection to this community or provides employment, goods and/or services uniquely important to this population group. There are several large neighborhoods in this area that do not contain minority populations. These residents equally patronize this business and would be equally affected by its displacement. No environmental justice concerns about the affected business were raised at community meetings. Relocation assistance would be offered to eligible displacees.

Increases in noise would not be concentrated in minority or low-income areas. Of the 295 impacted receivers, 64 would be located in or adjacent to census blocks or block groups with concentrations of minorities or low-income households. Noise levels for all of the impacted receivers would either exceed the NAC or increase by 10dBA or more over existing conditions.

Impacts to the golf course, fossil viewing area, community park, out-of-direction travel, and rerouting associated with access changes would be distributed among minority and low-income residents as well as non-minority and non-low-income residents. Of the seven intersections that would operate at LOS F in 2030, three would be in or adjacent to areas that have concentrations of minority and low-income residents.

Therefore, impacts associated with the Freeway Alternative would not be predominantly borne by a minority or low-income population. Nor would these impacts be appreciably more severe or greater in magnitude than those experienced by non-minority or non-low-income populations. For these reasons it can be concluded that the Freeway Alternative would not cause disproportionately high or adverse effects on minority or low-income populations.

#### **TOLLWAY ALTERNATIVE**

Impacts associated with this alternative include residential and businesses displacements, increases in noise, land acquired from recreational facilities, access changes, and declining level of service at some intersections. These impacts would affect both minority and low-income populations and non-minority and non-low-income populations. Minority and low-income populations would not experience a greater number of impacts than non-minority or non-low-income populations. Nor would these impacts be more severe for minority or low-income populations.

This alternative would require that seven businesses be displaced, of which six are in or immediately adjacent to census blocks with concentrations of minorities. All six displacements would occur from within the Canyon Point Commercial Center, which is adjacent to a minority population. While this population is likely to patronize these businesses, there is no evidence to suggest that the affected businesses have any particular connection to this community or provide employment, goods and/or services uniquely important to this population group. There are several large neighborhoods in this area that do not contain minority populations. These residents equally patronize these businesses and would be equally affected by their displacement. No environmental justice concerns about the affected businesses were raised at community meetings. Relocation assistance would be offered to eligible displacees.

Increases in noise would not be concentrated in minority or low-income areas. Of the 128 impacted receivers, 37 would be located in census blocks or block groups with concentrations of minorities or low-income households. Noise levels for all of the impacted receivers would either exceed the NAC or increase by 10dBA or more over existing conditions.

Impacts to the golf course, fossil viewing area, community park, out-of-direction travel, and rerouting associated with access changes would be distributed among minority and low-income residents as well as non-minority and non-low-income residents. Of the 11 intersections that would operate at LOS F in 2030, five would be in or adjacent to areas that have concentrations of minority and low-income residents.

Because travel options will continue to exist, including the existing general purpose (i.e., "free") lanes, and because options for alternative purchasing of tolling transponders will exist, there do not appear to be any equity issues associated with toll lanes.



Therefore, impacts associated with the Tollway Alternative would not be predominantly borne by a minority or low-income population. Nor would these impacts be appreciably more severe or greater in magnitude than those experienced by non-minority or non-low-income populations. For these reasons it can be concluded that the Tollway Alternative would not cause disproportionately high or adverse effects on minority or low-income populations.

#### REGIONAL ARTERIAL ALTERNATIVE

Impacts associated with this alternative include residential and businesses displacements, increases in noise, land acquired from recreational facilities, access changes, and declining level of service at some intersections. These impacts would affect both minority and low-income populations and non-minority and non-low-income populations. Minority and low-income populations would not experience a greater number of impacts than non-minority or non-low-income populations. Nor would these impacts be more severe for minority or low-income populations.

One of the two impacted businesses is adjacent to a minority population. While this population is likely to patronize this business, there is no evidence to suggest that the affected business has any particular connection to this community or provides employment, goods and/or services uniquely important to this population group. There are several large neighborhoods in this area that do not contain minority populations or low-income populations. These residents equally patronize this business and would be equally affected by its displacement. No environmental justice concerns about the affected business were raised at community meetings. Relocation assistance would be offered to eligible displacees.

Increases in noise would not be concentrated in minority or low-income areas. Of the 124 impacted receivers, 46 would be located in census blocks or block groups with concentrations of minorities or low-income households. Noise levels for all of the impacted receivers would either exceed the NAC or increase by 10dBA or more over existing conditions.

Impacts to the golf course, fossil viewing area, community park, out-of-direction travel, and rerouting associated with access changes would be distributed among minority and low-income residents as well as non-minority and non-low-income residents. Of the 11 intersections that would operate at LOS F in 2030, three would be in or adjacent to areas with concentrations of minority and low-income residents.

Therefore, impacts associated with the Regional Arterial Alternative would not be predominantly borne by a minority or low-income population. Nor would these impacts be appreciably more severe or greater in magnitude than those experienced by non-minority or non-low-income populations. For these reasons it can be concluded that the Freeway Alternative would not cause disproportionately high or adverse effects on minority or low-income populations.

#### COMBINED ALTERNATIVE (RECOMMENDED ALTERNATIVE)

Impacts associated with this alternative include residential and businesses displacements, increases in noise, acquisition from recreational facilities, access changes, and declining level of service at some intersections. These impacts would affect both minority and low-income populations and non-minority and non-low-income populations. Minority and low-income populations would not experience a greater number of impacts than non-minority or non-low-income populations. Nor would these impacts be more severe for minority or low-income populations.

Four of the nine impacted businesses are in or immediately adjacent to census blocks with concentrations of minorities. One of these is located in the Canyon Point Commercial Center. As discussed for the Freeway Alternative, there is no evidence to suggest that this business has any particular connection to a minority community or provides employment, goods and/or services uniquely important to a minority population group. In addition, there are several large neighborhoods in this area that do not contain minority populations. These residents equally patronize this business and would be equally affected by its' displacement. The three other affected businesses are located along Indiana Street/McIntyre Street. These businesses consist of a nursery, breeding farm, and greenhouse. These businesses are dependent upon a rural environment, but are not connected to any particular neighborhood community. Field surveys, contacts with



local officials, and reviews of property records were conducted but did not provide definitive information demonstrating that the displaced businesses are minority-owned, have minority employees, or otherwise have a uniquely important connection to a minority population group. No environmental justice concerns about the affected business were raised at community meetings. Relocation assistance would be offered to eligible displacees.

Increases in noise would not be concentrated in minority or low-income areas. Of the 147 impacted receivers, 42 would be located in census blocks or block groups with concentrations of minorities or low-income households. Noise levels for all of the impacted receivers would either exceed the NAC or increase by 10dBA or more over existing conditions.

Impacts to the golf course, fossil viewing area, community park, out-of-direction travel, and rerouting associated with access changes would be distributed among minority and low-income residents as well as non-minority and non-low-income residents. Of the seven intersections that would operate at LOS F in 2030, two would be in or adjacent to areas that have concentrations of minority and low-income residents.

Because travel options will continue to exist, including the existing general purpose (i.e., "free") lanes, and because options for alternative purchasing of tolling transponders will exist, there do not appear to be any equity issues associated with toll lanes.

Therefore, impacts associated with the Combined Alternative (Recommended Alternative) would not be predominantly borne by a minority or low-income population. Nor would these impacts be appreciably more severe or greater in magnitude than those experienced by non-minority or non-low-income populations. For these reasons it can be concluded that the Combination Alternative (Recommended Alternative) would not cause disproportionately high or adverse effects on minority or low-income populations.

# 4.3.2.3 Environmental Justice Findings

The USDOT environmental justice guidance (USDOT Order 5610.2 [USDOT 1997]) has established the findings that must be met in order for transportation agencies to approve a project with a disproportionately high and adverse effect on minority and/or low-income population groups. The findings for groups protected under Executive Order 12898 (i.e., both minority and low-income populations) differ from those for groups protected by Title VI (i.e., minority populations only).

Findings for E.O. 12898 Groups – Transportation agencies "will ensure that any of their respective programs, policies, or activities will only be carried out if further mitigation measures or alternatives that would avoid or reduce the disproportionately high and adverse effect are not practicable. In determining whether a mitigation measure or alternative is 'practicable,' the social, economic (including costs), and environmental effect of avoiding or mitigating the adverse effects will be taken into account."

Findings for Title VI Groups – Transportation agencies "will ensure that any of their respective programs, policies, or activities that will have a disproportionately high and adverse effect on populations protected by Title VI ('protected populations') will only be carried out if: (1) a substantial overall need for the program, policy, or activity exists, based on the overall public interest; and (2) alternatives that would have less adverse effects on protected populations and that still satisfy the need identified in (1) above, either i) would have other adverse social, economic, environmental or human health impacts that are more severe, or ii) would involve increased costs of extraordinary magnitude."

This analysis fulfills the spirit and intent of both EO 12898 and Title VI, and concludes that none of the build alternatives are expected to have a disproportionately high and adverse effect on minority and/or low-income population groups.



#### 4.3.3 SUGGESTED MITIGATION

In addition to the general mitigation recommended for each affected resource (see **Section 4.27**), CDOT and FHWA will, despite the lack of potential disproportionately high and adverse effects, continue to ensure active and effective engagement with the affected communities by employing mechanisms to reduce cultural, language, and economic barriers to participation. Any disproportionately high and adverse impact on minority and/or low-income population groups perceived during these communications will be assessed to the appropriate degree.

Furthermore, future studies and observations regarding tolling equity issues, including the Colorado Tolling Enterprise amendment to the 2030 Regional Transportation Plan, will be reviewed as available to ensure the latest state of the practice may be incorporated or cited in future documentation. Colorado Statute already ensures that existing general purpose (i.e., free) lanes and routes will not be converted to exclusively tolled facilities and mobility and access to existing facilities will also remain, so free options would continue to exist. Additionally, if either the Tollway Alternative or Combined Alternative (Recommended Alternative) is chosen and constructed, ways to make tolling more fair and equitable will be sought. For example, issues related to credit cards and account debits would be considered in order to permit the broadest opportunity possible to use toll facilities. This might entail providing alternative payment options for transponder purchases and toll replenishment using cash or employer-based payroll deductions.



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