Section 4.18
Environmental Justice

This section summarizes, and updates where appropriate, the potential impacts described in Chapter 3, Transportation Impacts and Mitigation, and other sections of Chapter 4, Environmental Analysis, Consequences, and Mitigation, and identifies potentially disproportionate environmental justice impacts (i.e., impacts that could affect low-income and minority populations more than other population groups). Additional detail is provided in the Environmental Justice Technical Memorandum, which is incorporated into this Draft EIS/EIR as Appendix DD.

4.18.1 Regulatory Framework/Methodology

This section presents the federal, state, and local regulations that govern environmental justice issues.

4.18.1.1 Federal

4.18.1.1.1 Federal Definition of Environmental Justice Populations

The United States Department of Transportation (USDOT) Order (5610.2(a)) on environmental justice provides clear definitions of the minority groups addressed by the Executive Order. Minority groups are defined as Black, Hispanic, Asian American, American Indian and Alaskan Native, and Native Hawaiian or Other Pacific Islander. Low-income populations are defined as individuals or households with incomes at or below the U.S. Census poverty thresholds.

The following Executive Orders and regulations apply to environmental justice:

- Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations
- Executive Order 13166, Improving Access to Services for Persons with Limited English Proficiency: The public outreach efforts for the environmental process will be conducted with provisions to reach LEP communities during the scoping and screening process, and in other such public outreach meetings
- FTA Circular 4703.1 Environmental Justice Policy Guidance for Federal Transit Administration Recipients
- USDOT Order 5610.2(a) on Environmental Justice to Address Environmental Justice in Minority Populations and Low-Income Populations

4.18.1.2 State

State law defines environmental justice in California Government Code §65040.12 as "the fair treatment of people of all races, cultures, and incomes with respect to the development, adoption, implementation, and enforcement of environmental laws, regulations and policies." While there is no requirement under the California Environmental Quality Act (CEQA) to address environmental justice, California law requires the Office of Planning and Research to coordinate with federal agencies regarding environmental justice based on Executive Order 12898.

4.18.1.3 Local

Metro includes guidelines and planning policies regarding environmental justice issues in its current *Long Range Transportation Plan* (LRTP). Metro's LRTP evaluates how much additional transit service would be provided in areas with high concentrations of low-income and minority populations. The LRTP includes extensive transit investments and policies for placement of these investments in proximity to areas with minority and

lower-income populations as well as near job opportunities that support those areas. The Eastside Transit Corridor Phase 2 Project is included in the LRTP.

4.18.1.4 Methodology

To complete the analysis in Appendix DD, Environmental Justice Technical Memorandum, as summarized herein, the following steps were taken:

Concentrations of minority and low-income populations (i.e., environmental justice areas) within the area of potential impact (API) were identified through analysis of U.S. Census data (and SCAG data, if available) at both the county and Census tract and block level. The API includes those Census tracts and blocks within one-half mile of the proposed alignment and associated facilities, such as those used for proposed park and ride lots and maintenance yards. Note that the Census tract is the lowest geographic level for which income data is available.

Using the U.S. Census Bureau 2010 Census, the API's population was evaluated for poverty status. Poverty status computations were derived by the U.S. Census using the Health and Human Services poverty thresholds. The annual income thresholds for poverty status are as follows:

- One-person household is $11,139
- Two-person household is $14,218
- Three-person household is $17,374
- Four-person household is $22,314
- Five-person household is $26,439
- Six-person household is $29,897
- Seven-person household is $34,009
- Eight-person household is $37,934

The individual block data were compared with the countywide data to determine if any of the blocks would qualify as having large concentrations of one or more special populations. Definitions of minority and low-income areas were established based on guidance provided by the Council on Environmental Quality (CEQ) and FTA Circular 4703.1.

A U.S. Census block in this study was categorized as having a large concentration of a special population if either:

- At least 50 percent of the population in the Census block was minority and at least 50 percent of the Census tract was low-income; or
- The proportion of minority residents in the block was greater than the average of the minority populations in the County, or the proportion of low-income residents in the tract was greater than the average of the County low-income population.

Environmental topics where disproportionate impacts to environmental justice communities occur were then identified. The following factors were evaluated to determine if a disproportionate share of the proposed project effects would be placed on or in environmental justice communities:

- Beneficial effects of the project
- Adverse effects to human health
- Other effects

Potentially adverse effects were examined in these critical areas: 1) property acquisition and displacements; 2) transportation access, parking, and traffic congestion; 3) air quality; 4) climate change; 5) water resources and water quality; 6)noise and vibration; 7) community facilities and parklands; 8) hazardous materials; 9) safety and security; 10) visual and aesthetics; and 11) construction effects. Where disproportionately high and adverse effects are anticipated, the analysis took into account mitigation and enhancement measures and potential offsetting benefits to the affected environmental justice populations. A disproportionately high and adverse effect on minority and low income population is an adverse effect that is predominantly borne by a minority population and/or a low-income population, or one that will be suffered by the minority population and/or low-income population and is appreciably more severe or greater in magnitude than the

adverse effect that will be suffered by the non-minority population and/or non-low-income population.

4.18.1.5 Public Participation

Full and fair access to meaningful involvement by low-income and minority populations in project planning and development is an important aspect of environmental justice. Ensuring full and fair access means actively seeking the input and participation from those typically under-represented groups throughout all project stages. Residents can provide important information on community concerns, special sites, and unusual traffic, pedestrian, or employment patterns in the corridor. This information can be used in the design and evaluation of alternatives, to avoid negative impacts to valued sites, and to support the development of safe, practical, and attractive transportation options that are responsive to the concerns of Environmental Justice communities.

Metro has implemented a robust outreach program with an emphasis on meaningful exchange with minority and low-income populations, which is described in detail in the Eastside Transit Corridor Phase 2 Scoping Outreach Report and Section 4.18.1.5, Public Participation. The engagement of local residents, business owners, and other stakeholders began with scoping in 2010 and continues to this day. Participation of low-income and minority populations in the Eastside Transit Corridor Phase 2 decision-making process has been advanced through:

- Expanded outreach to environmental justice communities to encourage attendance at and participation in project meetings and open houses.
- Translation of outreach materials into Spanish, Traditional Chinese, Simplified Chinese, Vietnamese, and/or Armenian.
- Availability of interpreters at scoping meetings to provide Spanish and Chinese translation. Participants wishing to listen to the proceedings in Spanish or Chinese were provided audio headsets.
- Meetings with city and county agency staff, local elected officials, and community leaders to identify leaders of local communities, particularly those traditionally under-represented in the civic process.
- Advertisements and press releases in a variety of minority-focused community publications and local and regional daily and weekly newspapers, including:
  - Eastern Group Publications (English/Spanish bilingual)
  - La Opinion (Spanish)
  - Whittier Daily News
  - Chinese LA Daily (Chinese)
  - South El Monte News
  - Pico Rivera Community Newspaper
  - East Los Angeles College Campus News
  - El Paisano at Rio Hondo College (Spanish)
  - Quaker at Whittier College
  - Spotlight on Montebello Newsletter
  - Industry Chamber Newsletter
  - Facebook online
- Direct mailings about the project to elected officials, government and city agencies, resource agencies, chambers of commerce, residents, businesses, churches, and community based organizations.
- Briefings for property owners and tenants located within the project area to educate businesses and property owners on the proposed alignments, study process, and right-of-way issues.
- Extended outreach to chambers of commerce, colleges, schools, churches, and community groups in the project area to promote project awareness and provide the opportunity for project involvement.

- Project tours to help project stakeholders and city representatives experience light rail transit first hand; Metro hosted several bilingual resident and city offical tours of the Eastside Gold Line Extension and the Pasadena Gold Line.

4.18.2 Affected Environment/Existing Conditions

4.18.2.1 Los Angeles County

According to the 2010 U.S. Census and 2011 American Community Survey, approximately 9.8 million persons resided in Los Angeles County. Roughly 72 percent of the Los Angeles County population is characterized as minority and 16 percent is characterized as low-income. The largest minority population is Hispanic, making up approximately 48 percent of the total population. Demographic data for the County and the project area are summarized in **Table 4.18-1**.

4.18.2.2 SR 60 LRT Alternative

According to the 2010 U.S. Census, there were 79,221 persons and 23,659 households residing in the SR 60 LRT Alternative API in 2010.

4.18.2.2.1 Minority

Approximately 94 percent of the population in the SR 60 LRT Alternative API belonged to a defined minority group in 2010 (US Census, 2010). As shown in **Figure 4.18-1,** all Census blocks in the API have high concentrations of minority populations. The minority group with the largest representation in the SR 60 LRT Alternative API in 2010 was Hispanic or Latino (approximately 69 percent). The second largest minority group in the SR 60 LRT Alternative API in 2010 was Some Other Race at 26 percent followed by Asian (approximately 24 percent), and the fourth largest minority group was made up of those categorized as Two or More Races (approximately four percent). All Census blocks in the SR 60 LRT Alternative API had minority population concentrations of 50 percent or greater, meaning that all Census blocks in the API are characterized as environmental justice areas for high minority concentrations.

For each of the station areas associated with the SR 60 LRT Alternative, the largest minority group in 2010 was Hispanic or Latino. For the one-half mile radius surrounding each station, 94 percent of the population near the Garfield Avenue station is minority, 89 percent of the population near the Shops at Montebello station is minority, 96 percent of the population near the Santa Anita Avenue station is minority, and 94 percent of the population near the Peck Road station is minority.

4.18.2.2.2 Low-Income

Approximately 16 percent of the population in the SR 60 LRT Alternative API in 2010 was considered low-income, i.e. living below the poverty threshold. Of the 25 Census tracts in the SR 60 LRT Alternative API, six had a low-income population concentration greater than the Los Angeles County average.

Of the proposed station locations, the Santa Anita Avenue station area had the largest percentage of population living below the poverty level at 10.2 percent. The Garfield Avenue and Peck Road stations followed close behind, with 10.1 percent of the population living below the poverty level.

4.18.2.3 Washington Boulevard LRT Alternative

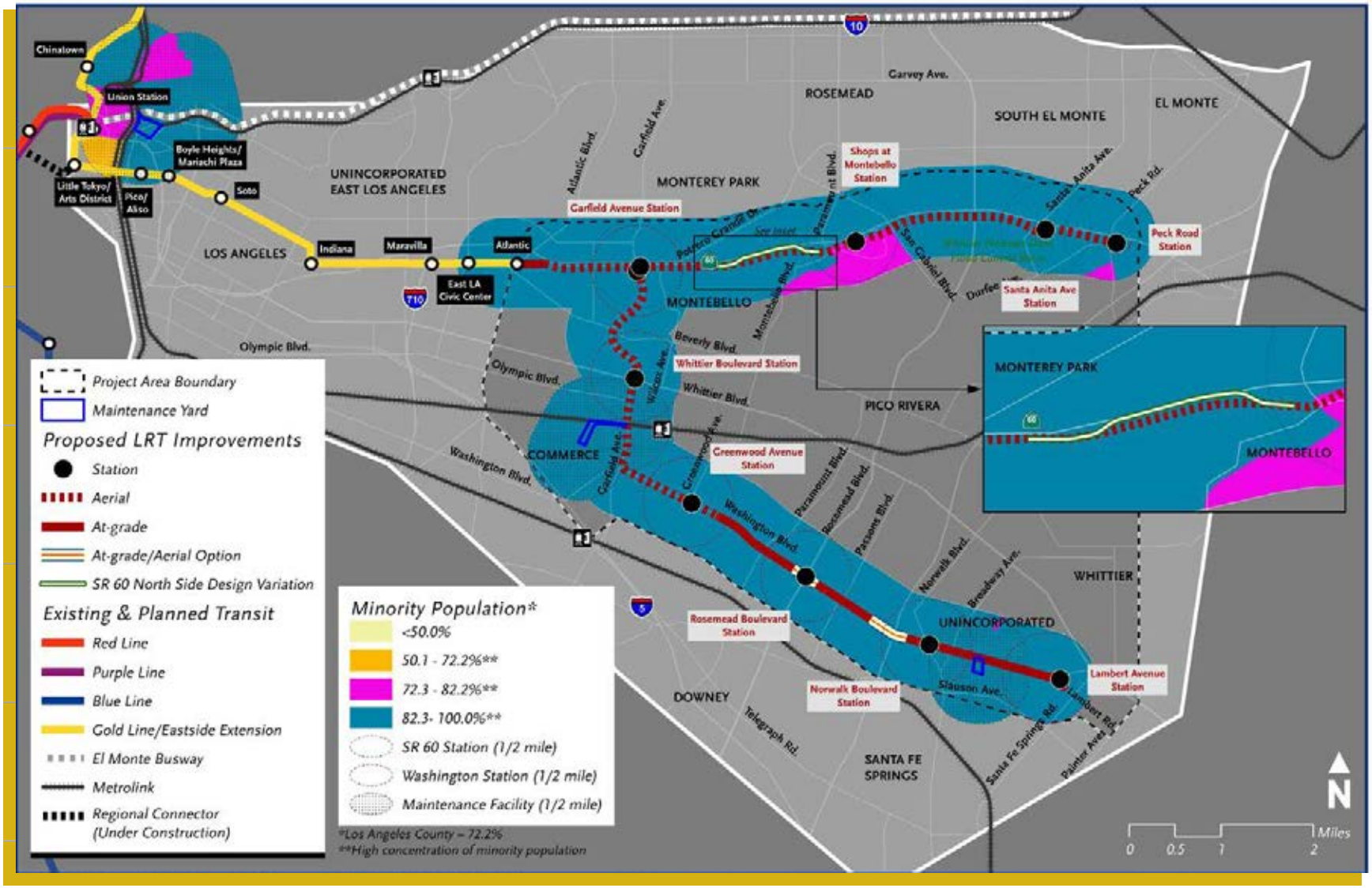
According to the 2010 U.S. Census, there were 136,234 persons and 37,993 households residing in the API of the Washington Boulevard LRT Alternative. The API for the environmental justice analysis includes those Census blocks within one-half mile of the Washington Boulevard LRT Alternative alignment and associated facilities such as those used for proposed park and ride lots and maintenance yards.

Table 4.18-1. Summary of Demographic Data

Demographic Area	Population	Percentage Minority	Percentage Black or African American	Percentage American Indian and Alaska Native	Percentage Asian	Percentage Native Hawaiian and Other Pacific Islander	Percentage Some Other Race	Percentage Two or More Races	Largest Minority Population (Hispanic or Latino)	Percentage Living Below Poverty Level
Los Angeles County	9,818,605	72.2%	8.7%	0.7%	13.7%	0.3%	21.8%	4.5%	47.7%	16.3%
SR 60 LRT	**79,221**	**94.0%**	**0.8%**	**0.9%**	**23.6%**	**0.1%**	**26.0%**	**3.7%**	**68.5%**	**13.3%**
Garfield Avenue Station	14, 991	94.2%	0.6%	0.8%	33.3%	0.0%	21.5%	3.9%	58.7%	10.1%
Shops at Montebello Station	14, 063	89.3%	1.2%	0.5%	46.1%	0.0%	14.7%	3.5%	41.0%	4.8%
Santa Anita Avenue Station	6,074	96.1%	0.5%	1.2%	10.4%	0.1%	28.3%	4.5%	84.6%	10.2%
Peck Road Station	15,116	94.4%	0.9%	1.0%	10.8%	0.0%	29.3%	4.5%	78.8%	10.1%
Washington Boulevard LRT	**136,234**	**94.4%**	**0.9%**	**1.2%**	**7.1%**	**0.1%**	**32.6%**	**3.7%**	**86.2%**	**16.2%**
Garfield Avenue Station	17,152	94.3%	0.6%	0.9%	30.1%	0.0%	21.8%	3.8%	61.5%	12.2%
Whittier Blvd. Station	25,100	95.4%	0.6%	1.3%	2.6%	0.1%	34.8%	3.9%	91.5%	19.2%
Greenwood Avenue Station	15,267	95.8%	1.4%	1.0%	2.6%	0.1%	31.2%	3.3%	91.8%	18.1%
Rosemead Blvd. Station	15,102	93.8%	1.0%	1.5%	2.0%	0.1%	30.8%	3.2%	90.9%	9.1%
Norwalk Blvd. Station	14,183	92.4%	1.1%	1.6%	1.6%	0.2%	34.4%	4.0%	89.2%	11.5%
Lambert Avenue Station	12,722	90.1%	1.2%	1.5%	1.8%	0.2%	36.2%	3.8%	85.8%	11.8%

Source: U.S. Census Bureau, Census 2010

Note: Refer to Figure 4.18-1. Minority Populations within One-Half Mile of Build Alternatives and Figure 4.18-2. Population below Poverty Level within One-Half Mile of Build Alternatives, which depict the areas considered environmental justice communities.



Source: AECOM, CDM 2011.

Figure 4.18-1. Minority Populations within One-Half Mile of Build Alternatives

The average unemployment rate for persons living within the Washington Boulevard API in 2010 was nine percent, compared with the overall Los Angeles County unemployment rate of eight percent.

4.18.2.3.1 Minorities

In 2010, approximately 94 percent of the population in the Washington Boulevard LRT Alternative API belonged to a minority group. As shown in Figure 4.18-1, all Census blocks in the API have high concentrations of minority populations. The minority group with the largest representation in the Washington Boulevard LRT Alternative API in 2010 was Hispanic or Latino (86 percent). The second largest minority group in 2010 was Some Other Race with 33 percent, followed by Asian (seven percent). All 89 Census blocks in the Washington Boulevard LRT Alternative API had minority population concentrations greater than 50 percent.

All proposed station areas had a minority population of over 50 percent in 2010 (Garfield Avenue at 94 percent, Whittier Boulevard at 95 percent, Greenwood Avenue at 96 percent, Rosemead Boulevard at 94 percent, Norwalk Boulevard at 92 percent, and Lambert Avenue at 90 percent), indicating that all station areas have high concentrations of minority populations. Each station also has a majority of Latino or Hispanic residents.

4.18.2.3.2 Low-Income

The population distribution of persons below the poverty level, or low-income, within the API is depicted in **Figure 4.18-2**. Approximately 16 percent of the population was considered low-income, or living below the poverty threshold, in 2010. Of the 39 Census tracts in the Washington Boulevard LRT Alternative API, 16 had a low-income population concentration greater than that of Los Angeles County.

Of the Census tracts surrounding the proposed station areas for the Washington Boulevard LRT Alternative API, two (Whittier Boulevard and Greenwood Avenue) had low-income population concentrations greater than that of Los Angeles County.

4.18.3 Environmental Impacts/Environmental Consequences

1) ***Beneficial Effects of the Project.*** To estimate the extent of the benefits derived from the project alternatives, the following analysis provides a comparison of the alternatives with regard to the following criteria:

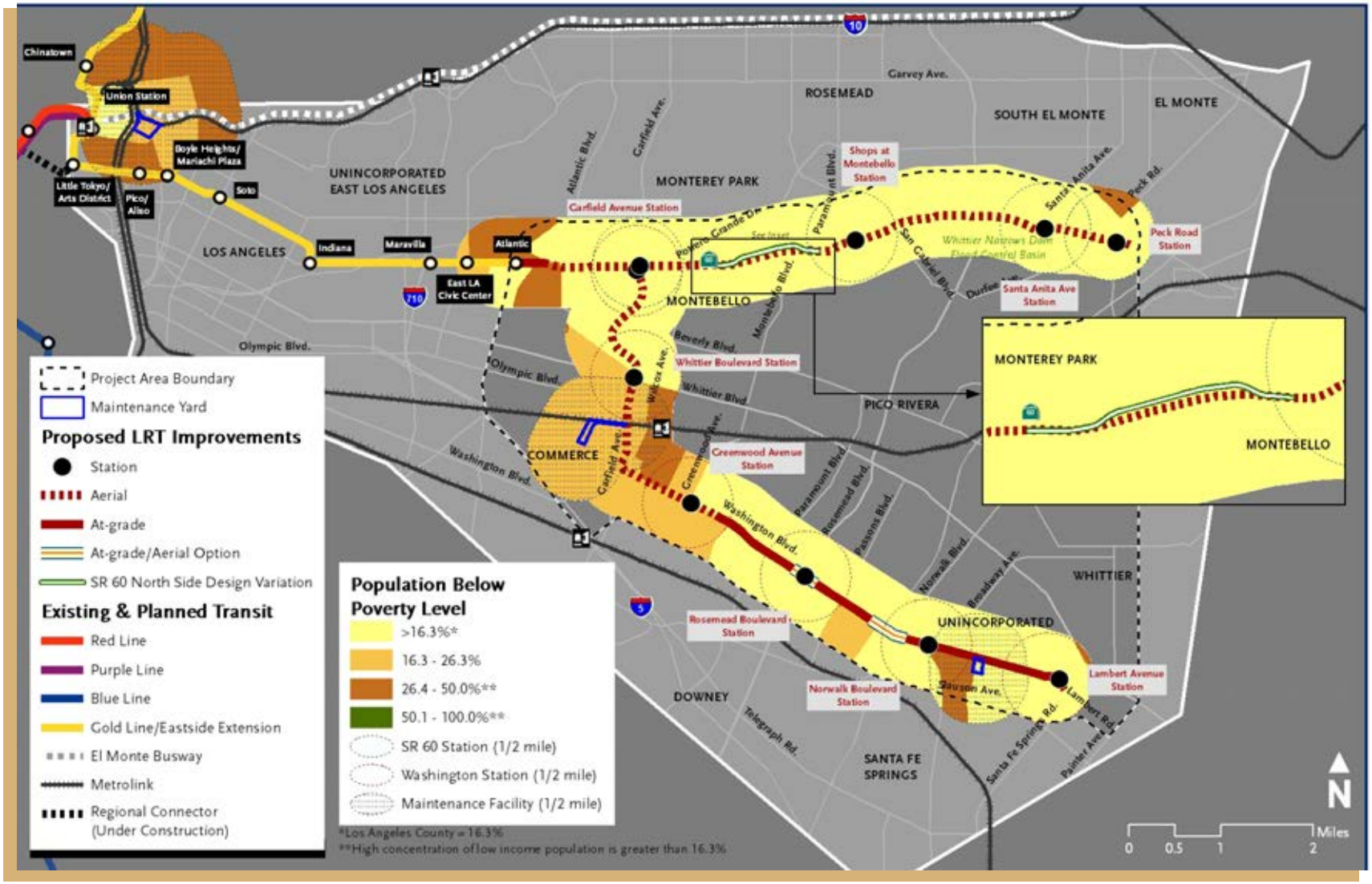
- Daily transit trips and mobility
- Travel time savings
- Regional mobility
- Economic vitality and employment opportunities

2) ***Adverse Effects to Human Health***. The discussion of health issues includes the environmental issues of air quality, climate change, noise and vibration, water quality, and exposure to contaminated soils.

3) ***Other Effects.*** This analysis focuses on potential adverse environmental effects of the project to natural and scenic resources, as well as the effects on the community and neighborhoods.

As previously stated, 94 percent of the project area is an Environmental Justice area. While all impacts from the project would affect Environmental Justice populations, they would not be disproportionate adverse impacts given the offsetting benefits and available mitigation measures.

Adverse effects would occur after mitigation for the Washington LRT Alternative related to traffic congestion, community and neighborhoods, and visual and aesthetics. These adverse effects would not be fully addressed through mitigation measures, resulting in unavoidable adverse effects. However, the effects would be distributed proportionally throughout the corridor.



Source: AECOM, CDM Smith 2011.

Figure 4.18-2. Population below Poverty Level within One-Half Mile of Build Alternatives

In view of the considerable project benefits and local support for implementing the Washington Boulevard LRT Alternative, the potential adverse effects would be outweighed by the increased mobility, regional connectivity, equity, and economic gains that this alternative could offer. As such, there would be no disproportionate adverse effects for all alternatives.

Beneficial effects of the project are summarized in **Table 4-18-2**. Potential effects after mitigation are summarized in **Table 4.18-3.**The analysis and conclusions for each project alternative are discussed in detail in Appendix DD, Environmental Justice Technical Memorandum, of this Draft EIS/EIR.

It should be noted that no CEQA guidance is given for the assessment of impacts on environmental justice populations. As such, the potential impacts described here relate only to NEPA.

4.18.3.1 No Build Alternative

4.18.3.1.1 Impact Analysis

Operational Impacts

Beneficial Effects

The No Build Alternative would not increase travel-time savings, enhance regional mobility, or boost economic vitality and employment opportunities. No positive benefits are associated with the No Build Alternative in regards to low-income and minority communities.

Human Health Effects

The No Build Alternative would not cause disproportionate adverse effects to low-income and minority populations related to human health issues, including air quality, climate change, noise and vibration, water quality, and exposure to soils contamination.

Other Effects

The No Build Alternative would not cause disproportionate adverse effects to low-income and minority populations related to parking, displacements, community cohesion, visual and aesthetics, historical, archaeological and paleontological resources, parklands, or safety and security.

4.18.3.1.2 Mitigation Measures

No mitigation measures are required.

4.18.3.1.3 Impacts Remaining After Mitigation

No major capital investment in mass transit in the project area would occur under the No Build Alternative. Therefore, no disproportionate adverse effects to environmental justice populations associated with construction are anticipated because of the No Build Alternative.

While the No Build Alternative would not result in disproportionate adverse effects to low-income and minority populations, the benefits that would be provided by the build alternatives would not be realized for those populations that rely on transit. The No Build Alternative would not provide the positive benefits of improved mobility and travel time and cost savings as would the other alternatives.

4.18.3.2 TSM Alternative

4.18.3.2.1 Impact Analysis

Construction Impacts

The minimal construction that would occur under the TSM Alternative for enhancements to bus services would take place within existing street and sidewalk networks. Any construction equipment and materials used would be typical of existing construction throughout the region. As the TSM Alternative would only involve the addition of new bus service in the project area, it would not negatively affect traffic flows or parking. The TSM Alternative would have temporary adverse effects during construction to local transit, pedestrian, and bicycle conditions through the duration of construction; however these effects would be mitigated through Traffic Management Plans and the use of alternative routes (see Chapter 3, Mitigation Measure 3.0-i).

Table 4.18-2. Summary of Beneficial Effects

Effects	No Build Alternative	TSM Alternative	SR 60 LRT Alternative[1]	Washington Boulevard LRT Alternative
Daily transit trips/ mobility	--	Increase in daily trips and increased mobility	Increase in daily trips and improved mobility with more transportation options	Increase in daily trips and increased mobility with more transportation options
Travel time savings	No improvement to travel times; will affect all populations; no disproportionate adverse effect	Improved travel time savings; no disproportionate adverse effect	Improved travel time savings	Improved travel time savings
Regional mobility	No new transit service or improvements to existing service; no disproportionate adverse effect	Improved regional mobility; no disproportionate adverse effect	Enhanced regional connectivity with more transportation choices, improved mobility, and greater access to regional employment, services, and recreational centers	Enhanced regional connectivity with more transportation choices, improved mobility, and greater access to regional employment, services, and recreational centers
Economic vitality and employment opportunities	--	--	Potential economic opportunity for communities with the development of stations	Potential economic opportunity for communities with the development of stations
Community and neighborhoods	--	--	Proposed new service would provide quality of life benefits through improved mobility, travel time savings, and access to various businesses, employment, and community services; would reduce the dividing effects of the SR 60 Freeway, Rio Hondo, and Whittier Narrows Recreation Area, which would be a beneficial effect	Proposed new service would provide quality of life benefits through improved mobility, travel time savings, and access to various businesses, employment, and community services.

[1] *Results are for both the SR 60 LRT Alternative and the SR 60 LRT North Side Design Variation.*

Table 4.18-3. Summary of Potential Effects After Mitigation

Effects	No Build Alternative	TSM Alternative	SR 60 LRT Alternative[1]	Washington Boulevard LRT Alternative
Noise and Vibration	--	--	**Construction** and **Operation**: No disproportionate adverse effect after mitigation	**Construction** and **Operation**: No disproportionate adverse effect after mitigation
Traffic Congestion	--	--	**Construction** and **Operation**: No disproportionate adverse effect after mitigation	**Construction**: No disproportionate adverse effect after mitigation **Operation**: Adverse effect after mitigation, but no disproportionally adverse effect since the effect would be distributed proportionally throughout the corridor.
Parking	--	--	**Construction** and **Operation**: No disproportionate adverse effect after mitigation	**Construction** and **Operation**: No disproportionate adverse effect after mitigation
Transit	--	**Construction**: No disproportionate adverse effect after mitigation	**Construction**: No disproportionate adverse effect after mitigation **Operation**: --	**Construction**: No disproportionate adverse effect after mitigation **Operation**: --
Pedestrian and Bicycle Circulation	--	**Construction**: No disproportionate adverse effect after mitigation **Operation**: --	**Construction**: No disproportionate adverse effect after mitigation **Operation**: --	**Construction**: No disproportionate adverse effect after mitigation **Operation**: No disproportionate adverse effect after mitigation
Displacements	--	--	--	**Construction**: No disproportionate adverse effect after mitigation **Operation**: No disproportionate adverse effect after mitigation

Table 4.18-3. Summary of Potential Effects After Mitigation (continued)

Effects	No Build Alternative	TSM Alternative	SR 60 LRT Alternative[1]	Washington Boulevard LRT Alternative
Community and Neighborhoods	--	--	**Construction and Operation:** No disproportionate adverse effect after mitigation.	**Construction:** No disproportionate adverse effect after mitigation **Operation:** Adverse effect after mitigation, but no disproportionally adverse effect since the effect would be distributed proportionally throughout the corridor.
Visual and Aesthetics	--	--	**Construction**: No disproportionate adverse effect after mitigation **Operation**: No disproportionate adverse effect after mitigation	**Construction**: No disproportionate adverse effect after mitigation **Operation**: Adverse effect after mitigation, but no disproportionally adverse effect since the effect would be distributed proportionally throughout the corridor.
Parklands and Other Community Resources	--	--	**Construction**: No disproportionate adverse effect after mitigation **Operation**: --	--
Safety and Security	--	--	**Construction:** No disproportionate adverse effect after mitigation **Operation**: --	**Construction:** No disproportionate adverse effect after mitigation **Operation**: --

Notes
-- = No disproportionate adverse effect before mitigation (no mitigation required).
[1] *Results are for both the SR 60 LRT Alternative and the SR 60 LRT North Side Design Variation.*

Operational Impacts

Beneficial Effects

The TSM Alternative would expand Rapid Bus transit and add express and local bus service. As a result, the TSM Alternative would serve to invest in and enhance transit resources in communities with high concentrations of low-income and minority populations.

Region-wide, slight reductions in overall vehicle miles traveled (VMT), vehicle hours traveled (VHT), and peak hour trips would occur when compared with the No Build Alternative. This indicates that the TSM Alternative would offer increased mobility and travel time savings for the low-income and minority populations in the project area. Since the TSM Alternative would invest transit resources in a minority and low-income community, no disproportionate adverse effects are anticipated. However, the travel time savings and mobility benefits that would be provided under the TSM Alternative would not be as great as those that would be provided under the LRT build alternatives.

The TSM Alternative would not result in disproportionate adverse effects to low-income and minority populations associated with diminished economic vitality and employment opportunities.

Human Health Effects

The TSM Alternative would also not cause disproportionate adverse effects to low-income and minority populations related to human health issues, including air quality, climate change, noise and vibration, water quality, and exposure to soils contamination.

Other Effects

Although minimal, the TSM Alternative would reduce traffic congestion since slight reductions in overall VMT, VHT, and peak auto trips would occur.

The TSM Alternative would not cause disproportionate adverse effects to low-income and minority populations related to parking, displacements, community and neighborhoods, visual and aesthetics, historic, archaeological and paleontological resources, parklands, or safety and security.

The TSM Alternative would not result in an adverse effect under NEPA with regard to low-income and minority populations.

4.18.3.2.2 Mitigation Measures

Construction Mitigation Measures

A Traffic Management Plan would be developed and implemented by Metro to address the temporary disruptions to local transit, pedestrian, and bicycle conditions during construction as discussed above. (See Chapter 3, Mitigation Measure 3.0-i.)

Operational Mitigation Measures

No mitigation measures would be required.

4.18.3.2.3 Impacts Remaining After Mitigation

Under the TSM Alternative, proposed enhancements to bus services would utilize the existing street and sidewalk networks and would require minimal construction. Any construction equipment and materials used would be typical of existing construction throughout the region. In addition, the Traffic Management Plan (Mitigation Measure 3.0-i) would mitigate temporary disruptions to transit service as well as bicycle and pedestrian conditions. Therefore, no disproportionate adverse effects related to construction would occur.

No disproportionate adverse effects to low-income and minority populations associated with construction or operation of the TSM Alternative would occur under NEPA.

As indicated above, the beneficial effects that would be provided under the TSM Alternative, travel time savings and mobility benefits, would not be as great as those that would be provided under the LRT build alternatives.

4.18.3.3 SR 60 LRT Alternative

4.18.3.3.1 Impact Analysis

Construction Impacts

Since 94 percent of the block groups in the SR 60 LRT Alternative project area are environmental justice areas, it is to be expected that adverse effects would be experienced by environmental justice populations and non-environmental justice areas. Prior to the incorporation of mitigation measures, temporary construction activity associated with the SR 60 LRT Alternative (with or without the North Side Design Variation) would have adverse effects associated with noise and vibration; traffic congestion; parking; transit, pedestrian and bicycle circulation; community and neighborhoods; visual and aesthetics; parklands and other community resources; and safety and security as described in detail in Appendix DD, Environmental Justice Technical Memorandum, of this Draft EIS/EIR.

Regarding noise and vibration, there would be potential adverse noise effects at residences adjacent to the construction activities.

Traffic congestion effects would include temporary closure of travel lanes through the duration of construction. Haul and delivery truck routes may affect residents and commuters along the alignment by affecting traffic flow patterns. If this occurs, vehicular travel times and intersection operations may be affected along these roadways. This would also have a temporary adverse effect on transit operations during construction. Current off-street parking facilities would be utilized for construction activities, particularly near the proposed stations, which would result in a temporary adverse effect during construction.

During construction, effects to pedestrian and bicycle circulation would be adverse as intermittent sidewalk closures would be needed. Temporary pedestrian detours would inhibit, but not prevent, access along the proposed alignment.

Temporary disruption of community activity in established communities and neighborhoods would also occur during construction.

Construction of the SR 60 LRT Alternative would require the removal of screening trees along the southern ROW of SR 60, which would result in a temporary adverse visual effect. There would also be temporary adverse effects with regards to pedestrian safety and overall security concerns during construction. With regard to parklands and other community resources, there would be temporary closure of some bike paths in the project area during construction.

Operational Impacts

Both the beneficial and potential adverse effects of operations after mitigation are summarized in Table 4.18-2 and Table 4.18-3. This would predominately affect environmental justice populations because all Census blocks in the study area have 94 percent or more minority residents.

Beneficial Effects

The SR 60 LRT Alternative, with or without the North Side Design Variation, would expand light rail service as well as provide bus improvements within the project area. Positive effects of the SR 60 LRT Alternative would include increased mobility and travel time savings for environmental justice communities. The SR 60 LRT Alternative would also result in improved regional connectivity due to the higher quality of service and reduced travel times, as well as the rail-to-rail connections that would be offered by light rail. This enhanced regional connectivity would allow improved mobility and greater access to regional employment, educational, medical, social service, and recreational centers for the large percentage of low-income and minority populations who live in the corridor. In addition, the SR 60 LRT Alternative could provide increased employment opportunities due to a number of development opportunities at proposed station locations, which would result in positive economic gains in the form of increased wages and spending.

Human Health Effects

The SR 60 LRT Alternative would not cause disproportionate adverse effects related to human health issues including air quality, climate change, water quality, and exposure to soils contamination on low-income and minority populations.

Other Effects

Although minimal, the SR 60 LRT Alternative would have beneficial effects on both a region-wide and project area level by reducing overall VMT, VHT, and peak hour vehicle trips, all of which would reduce traffic congestion. The SR 60 LRT Alternative would have adverse effects under NEPA with regards to traffic operations and parking. (See Chapter 3, Section 3.3.3 SR 60 LRT Alternative, 3.3.3.1 Impact Analysis.)

The SR 60 LRT Alternative would also have the following adverse effects under NEPA prior to implementation of mitigation measures. With regards to noise and vibration, moderate noise effects would occur at residences along the south side of Via Campo and along the south side of the SR 60 freeway in Montebello (west of Montebello Country Club and east of Markland Drive) and South El Monte (between Lexington-Gallatin Road and Farmer Avenue).The proposed elevated structure would create a new visual element, which would slightly change the visual character of the corridor. Details of adverse effects to the project study area are described in detail in Appendix DD, Environmental Justice Technical Memorandum, of this Draft EIS/EIR.

The SR 60 LRT Alternative would not result in disproportionate adverse effects to low-income and minority populations associated with pedestrian and bicycle circulation; displacement (no housing or persons would be displaced or relocated and no employment would be permanently lost due to displacement); community and neighborhoods; historical, archaeological, and paleontological resources; parklands; or safety and security.

4.18.3.3.2 Mitigation Measures

Metro is committed to implementing mitigation strategies for any potential adverse effects not offset by identified project benefits, and will continue to coordinate with the environmental justice communities throughout the duration of the project. Mitigation measures for construction and operations are summarized in **Table 4.18-4** and Table ES-2. More details on the referenced mitigation measures can be found in the technical memoranda of supporting analyses located in Appendix DD.

4.18.3.3.3 Impacts Remaining After Mitigation

The improvements from the SR 60 LRT Alternative would benefit low-income and minority areas throughout the project corridor. There are no disproportionate adverse effects remaining after the incorporation of mitigation measures as summarized in Table 4.18-3 above.

As previously stated, the SR 60 LRT Alternative is located largely within environmental justice communities, and thus, both adverse and beneficial effects would be experienced by environmental justice communities. Where there are adverse impacts, Metro has committed to apply the mitigation measures equally through the project corridor. No disproportionate adverse effects to environmental justice populations associated with construction and operation of the SR 60 LRT Alternative, with or without the North Side Design Variation, would occur. Nonetheless, Metro recognizes that some of the specific impacts of the SR 60 LRT Alternative may adversely affect environmental justice populations. Mitigation measures identified throughout Chapters 3.0, and 4.0 of this EIS/EIR would address impacts from LRT operations and construction activities that may affect environmental justice populations.

Table 4.18-4. Summary of Mitigation Measures for the SR 60 LRT Alternative

Resource	Construction	Operation
Traffic Congestion	A Traffic Management Plan would be developed and implemented by Metro. All ramp closures or usage of ramp shoulders would need to be approved by Caltrans before implementation. Mitigation measures would reduce potential effects to transit, traffic, and freeway operations during construction of the SR 60 LRT Alternative to a level less than adverse. Mitigation measures 3.0-ii through 3.0-vii in Chapter 3 would address traffic congestion during construction.	Measures 3.0-xiv and 3.0-xv proposed to improve intersection operations would mitigate potential adverse effects at Santa Anita Avenue/SR 60 EB Ramps and Peck Road/Durfee Avenue.
Parking	Mitigation measures 3.0-ii and 3.0-ix in Chapter 3 would address parking effects during construction.	Mitigation measure 3.0-xvi in Chapter 3 would address parcels that could be affected by the partial acquisition of parking and replacement parking.
Pedestrian and bicycle circulation	Mitigation measures 3.0-ii and 3.0-x through 3.0-xiii in Chapter 3 would address the temporary disruptions to pedestrian and bicycle circulation.	None
Displacements	None	Mitigation measures 4.3-ii and 4.3-iii in Section 4.3, Displacements and Relocation would address these impacts.
Community and Neighborhoods	Mitigation measures 3.0-ii through 3.0-vii in Chapter 3 as well as mitigation measures 4.5-i through 4.5-xiii in Section 4.5, Community and Neighborhood Impacts, would address community and neighborhood impacts.	Mitigation measures 4.5-xiv through 4.5-xv in Section 4.5, Community and Neighborhood Impacts would reduce the effects on the community and neighborhoods in the project area.
Visual and Aesthetics	See mitigation measures 4.6-i through 4.6-xi in Section 4.6, Visual and Aesthetic Impacts. While no mitigation measures are available to make construction vehicles, heavy equipment, and other related components less than visible during construction, implementation of mitigation measures could further reduce the potential effects as identified for the build alternatives.	While there is no mitigation available to make the light rail components of the build alternatives visually inconspicuous, implementation of mitigation measure 4.6-xii in Section 4.6, Visual and Aesthetic Impacts would reduce the changes to the visual attributes of the surrounding neighborhoods.
Parklands and community facilities	The mitigation measures 4.15-i through 4.15-vii in Section 4.15, Parklands and Community Facilities would be implemented for potential effects to parklands and community facilities.	None
Noise and Vibration	Mitigation measures 4.9-i through 4.9-vii in Section 4.9, Noise and Vibration, would address noise and vibration impacts.	Mitigation measures 4.9-viii and 4.9-ix in Section 4.9, Noise and Vibration would address noise and vibration effects due to gaps at switches, LRT passbys along tangent aerial track sections, and grade crossings.
Water Resources	Mitigation measures 4.12-i through 4.12-ix in Section 4.12, Water Resources would address water resource impacts during construction.	Mitigation measures 4.12-xiv through 4.12-xv in Section 4.12, Water Resources would address impacts to water resources during operation.
Safety and Security:	Mitigation measures 4.16-i through 4.16-xi in Section 4.16, Safety and Security would address safety and security impacts during construction.	Mitigation measures 4.16-xii through 4.16-xxv in Section 4.16, Safety and Security would address safety and security impacts.

Note: Please refer to the specific section for the detailed mitigation measure. The referenced mitigation measures are also summarized in Table ES-2.

Metro would continue to provide enhanced outreach to environmental justice communities throughout the duration of the project to implement mitigation strategies effectively in those communities.

4.18.3.4 Washington Boulevard LRT Alternative

4.18.3.4.1 Impact Analysis

Construction Impacts

Since 94 percent of the block groups in the Washington Boulevard LRT Alternative project area are environmental justice areas, it is to be expected that adverse effects would be experienced by environmental justice populations and non-environmental justice areas.

Prior to the incorporation of mitigation measures, temporary construction activity associated with the Washington Boulevard LRT Alternative would have adverse effects associated with water resources; noise and vibration; traffic congestion; parking; transit; pedestrian and bicycle circulation; displacements; community and neighborhoods; visual and aesthetics; and safety and security, as described in detail in Appendix DD, Environmental Justice Technical Memorandum, of this Draft EIS/EIR.

For water resources, construction could result in temporary effects to floodplains and flood control facilities, surface water and groundwater resources, and water quality.

For noise and vibration, there would be potential adverse noise effects at residences adjacent to the construction activities.

Traffic congestion effects would include temporary closure of travel lanes through the duration of construction. Haul and delivery truck routes may affect residents and commuters along the alignment by affecting traffic flow patterns. If this occurs, vehicular travel times and intersection operations may be affected along these roadways. This would also have a temporary adverse effect on transit operations during construction. Current off-street parking facilities would have temporary adverse effects as they would be utilized for construction activities, particularly near the proposed stations.

During construction, temporary effects to pedestrian and bicycle circulation would be adverse as intermittent sidewalk closures would be needed. Temporary pedestrian detours would inhibit, but not prevent, access along the proposed alignment.

Temporary disruption of community activity in established communities and neighborhoods would also occur during construction.

The loss of mature trees and the visual prominence of construction activities within close proximity to visually-sensitive resources would result in temporary visual and aesthetic adverse effects during construction. There would also be temporary adverse effects to pedestrian safety and overall security concerns during construction.

Operational Impacts

Both the beneficial and potential adverse effects of operation of the Washington Boulevard LRT Alternative would predominately affect environmental justice populations because all Census blocks in the study area are 75 percent or more minorities.

Beneficial Effects

The Washington Boulevard LRT Alternative would expand light rail service as well as provide bus improvements within the project area, which has high concentrations of minority and low-income populations. Positive effects of the Washington Boulevard LRT Alternative include improvements to transit service, increased mobility, and travel time savings for low-income and minority populations. The number of boardings under the Washington Boulevard LRT Alternative would be greater than the SR 60 LRT Alternative by about 3,200. (See Chapter 6, Table 6-3 Alternatives Evaluation Results for a more detailed discussion.) The proposed service improvements would increase transit trips and reduce travel times as well as rail-to-rail connections. This enhanced regional connectivity would allow

improved mobility and greater access to regional employment and educational, medical, social service, and recreational centers for the large percentage of low-income and minority residents in the corridor. In addition, the Washington Boulevard LRT Alternative could provide increased employment opportunities due to a number of development opportunities at proposed station locations, which would result in positive economic gains in the form of increased wages and spending.

Human Health Effects

The Washington Boulevard LRT Alternative (including the selection of a maintenance yard location) would not cause disproportionate adverse effects related to human health issues – including air quality, climate change, noise and vibration, water quality, and exposure to soils contamination – on low-income and minority populations residing in the project area.

Other Effects

The Washington Boulevard LRT Alternative would not result in disproportionate adverse effects on low-income and minority populations associated with displacement; community and neighborhoods; historical, archaeological, and paleontological resources; parklands; and safety and security. The potential adverse effects on environmental justice populations, prior to the incorporation of mitigation measures, in the project corridor are listed below.

- Transportation and parking impacts
- Pedestrian and bicycle circulation impacts
- Noise and vibration impacts
- Displacements and relocation
- Community and neighborhoods
- Visual and aesthetics

Traffic congestion would be adversely affected at multiple intersections and in the project area. For parking effects, the Washington Boulevard LRT Alternative would require the elimination of existing off-street parking facilities near each of the proposed stations, which would result in displaced parking.

For pedestiran and bicycle circulation, the transition of the proposed LRT service between the median alignment along Washington Boulevard and Santa Fe Springs Maintenance Yard Option would create a conflict between the LRT and pedestrians when the LRT is accessing the maintenance yard. The reduction in travel lanes east of Montebello Boulevard would create conflicts between bicycle and automobile traffic along the at-grade segment of the alignment.

Under noise and vibration impacts, the noise from passing trains would introduce new moderate effects in the center of the residential areas along Garfield Avenue, which have high concentrations of low-income and Hispanic or Latino populations.

Full acquisitions associated with the alignment would displace approximately nine residetial units and approximately 30 persons. It is anticipated that the persons diplaced could be relocated to comparable housing in the project area.

The visual character along Garfield Avenue, an area with high concentrations of low-income and Hispanic or Latino populations, would be permanently altered with the introduction of the aerial structure, resulting in adverse effects.

4.18.3.4.2 Mitigation Measures

Metro is committed to implementing mitigation strategies for any potential adverse effects not offset by identified project benefits, and will continue to coordinate with the environmental justice communities throughout the duration of the project. More details on the referenced mitigation measures can be found in the technical memoranda of supporting analyses located in Appendix DD.

Construction Mitigation Measures

Mitigation measures would reduce potential effects to transit, traffic, and freeway operations during construction of the Washington Boulevard

LRT Alternative to a level less than adverse. The same mitigation measures described for the SR 60 LRT Alternative (Mitigation measures 3.0-ii through 3.0-viii in Chapter 3 and summarized in Table 4.18-4 above and Table ES-2) would also apply to the Washington Boulevard LRT Alternative. In addition, the following mitigation measures apply:

Transportation and Parking: The San Gabriel River/I-605 aerial crossing option would have additional temporary adverse effects under NEPA and significant impacts under CEQA to the I-605 Freeway mainline. Mitigation measures 3.0-xvii and 3.0-ii through 3.0-iv in Chapter 3 would mitigate this impact. With this mitigation measure, the closures would not cause an adverse effect under NEPA and no disproportionate adverse effects to low-income and minority populations are anticipated.

Operational Mitigation Measures

The operational mitigation measures described for the SR 60 LRT Alternative, and summarized in **Table 4.18-4** above and Table ES-2, would also apply to the Washington Boulevard LRT Alternative. In addition, the following mitigation measures would apply for intersections, parking, pedestrian and bicycle circulation, noise and vibration, community and neighborhood, and visual and aesthetics effects and impacts for the Washington Boulevard LRT Alternative.

Traffic Congestion: The loss of travel lanes along Garfield Avenue and Washington Boulevard would decrease the capacity of the roadways along the Washington Boulevard LRT Alternative and would result in substantial adverse effects at many of the intersections. With implementation of mitigation measure 3.0-xviii in Chapter 3 of this EIS/EIR, the substantial adverse effect at the intersection of Montebello Boulevard/ Washington Boulevard during the AM peak hour would be mitigated. (Refer to the specific chapter for the detailed mitigation measure.) Since the remaining adversely affected intersections could not be mitigated, effects would be adverse and unavoidable under NEPA and significant and unavoidable under CEQA.

Parking: Mitigation measure 3.0-xix in Chapter 3 of this EIS/EIR would address impacts to parcels that would be affected by the acquisition of parking. (Refer to the specific chapter for the detailed mitigation measure.)

Pedestrian and Bicycle Circulation: Mitigation measures 3.0-xx through 3.0-xxiii in Chapter 3 of this EIS/EIR would address adverse effects on pedestrian and bicycle circulation for the Washington Boulevard LRT Alternative. (Refer to the specific chapter for the detailed mitigation measure.)

Noise and Vibration: Mitigation measures 4.9-x through 4.9-xii in Section 4.9, Noise and Vibration, of this EIS/EIR would address noise and vibration effects due to gaps at switches, LRT passbys along tangent aerial track sections, and grade crossings. (Refer to the specific section for the detailed mitigation measure.)

Community and Neighborhoods: Mitigation measures 4.5-xvi through 4.5-xvii in Section 4.5, Community and Neighborhood Impacts, of this EIS/EIR would address community and neighborhood impacts. (Refer to the specific section for the detailed mitigation measure.)

Visual and Aesthetics: While there is no mitigation available to make the light rail components of the Washington Boulevard LRT Alternative visually inconspicuous,

implementation of mitigation measures 4.6-xii through 4.6-xx in Section 4.6, Visual and Aesthetic Impacts, of this Draft EIS/EIR could reduce the changes to the visual attributes of the surrounding neighborhoods and potentially reduce the severity of adverse visual effects identified for sensitive land uses along Garfield Avenue, an area with high concentrations of low-income and Hispanic or Latino populations.

(Refer to the specific section for the detailed mitigation measure.)

4.18.3.4.3 Impacts Remaining After Mitigation

The improvements from the Washington Boulevard LRT Alternative would benefit low-income and minority areas throughout the project corridor.

As previously stated, the Washington Boulevard LRT Alternative is located largely within environmental justice communities, and thus both adverse and beneficial effects would be experienced by environmental justice communities. Where there are adverse impacts, Metro has committed to apply the mitigation measures equally through the project corridor. No disproportionate adverse effects to environmental justice populations associated with construction and operation of the Washington Boulevard LRT Alternative would occur.

Nonetheless, Metro recognizes that some of the specific impacts of the Washington Boulevard LRT Alternative may adversely affect environmental justice populations. Mitigation measures identified throughout Chapters 3.0 and 4.0 of this Draft EIS/EIR would address impacts from LRT operations and construction activities that may affect environmental justice populations.

Metro would continue to provide enhanced outreach to environmental justice communities throughout the duration of the project to implement mitigation strategies effectively in those communities. Potential adverse effects remaining after mitigation are summarized in Table 4.18-3.