



Section 4.19

Cumulative Impacts

This section summarizes potential cumulative impacts that could result from the Eastside Transit Corridor Phase 2 Project in combination with identified past, present and reasonably foreseeable projects. Information in this section is based on, and updated where appropriate from, the Cumulative Impacts Technical Memorandum which is incorporated into this Draft EIS/EIR as Appendix FF.

4.19.1 Regulatory Framework/Methodology

4.19.1.1 Federal

The Council on Environmental Quality's (CEQ) Regulations for Implementing the Procedural Provisions of the National Environmental Policy Act (NEPA) defines cumulative impact (40 CFR 1508.7) as follows:

“Cumulative impact’ is the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time.”

The CEQ regulations (40 CFR 1508.25) indicate that cumulative impacts shall be considered and discussed in the environmental impact statement. Many federal agencies provide their own guidance regarding how to evaluate cumulative impacts in federal NEPA documents. The Federal Highway Administration (FHWA) offers guidance for Department of Transportation projects in their environmental guidebook found at:

<http://www.environment.fhwa.dot.gov/guidebook/qaimpact.asp>.

4.19.1.2 State

The *California Environmental Quality Act (CEQA) Guidelines* mandate that an Environmental Impact Report (EIR) discuss cumulative impacts of a project when the project’s incremental effect is cumulatively considerable (Section 15130). “Cumulatively considerable” means that the incremental effects of an individual project are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects (Section 15064).

4.19.1.3 Thresholds of Significance

The standard for a NEPA finding of adverse effect for a cumulative effect is not well-defined. However, the cumulative impacts under NEPA are resource-specific and may follow the same standards of significance established for direct and indirect impacts of the alternative on each resource area.

Per CEQA, a cumulative impact may be considered significant if the project’s incremental effect is cumulatively considerable as indicated above. In considering whether the project’s incremental impact is cumulatively considerable, mitigation measures that will be implemented by the project sponsor may be considered. If the mitigation measures alleviate the cumulative impact caused by the project’s contribution, then the project does not result in a significant impact that is cumulatively considerable.

A lead agency may also determine that a project’s incremental contribution to a cumulative impact is

not cumulatively considerable if the project will comply with the requirements in a previously approved plan or mitigation program (including, but not limited to, a water quality control plan, air quality attainment or maintenance plan, integrated waste management plan, habitat conservation plan, natural community conservation plan, plans or regulations for the reduction of greenhouse gas (GHG) emissions that provide specific requirements that will avoid or substantially lessen the cumulative problem. For these cases, the lead agency should explain how implementing the particular requirements in the plan, regulation, or program ensure that the project's incremental contribution to the cumulative impact is not cumulatively considerable.

For both CEQA and NEPA purposes, it should be noted that the limited details available about other projects may also limit the extent of the evaluation possible for some cumulative impacts/effects as compared to that for the evaluation of direct and indirect impacts/effects.

The CEQA thresholds of significance are applied in this section for determining the significance of the impact.

4.19.1.4 Methodology

The cumulative impact of several projects is the change in the environment that results from the incremental impact of the project when added to other, closely related past, present, or reasonably foreseeable, probable future projects.

The tentative year of opening for the proposed project is 2033. Construction would occur approximately between 2027 and 2032 (years 2033 and 2034 are system testing and year 2035 is the first year of operation). Due to the long-term nature of project implementation, the list of projects analyzed in assessing cumulative impacts is highly speculative. For purposes of this Draft EIS/EIR analysis, a good faith attempt has been made to identify relevant possible public works and private projects. However, it was necessary to rely considerably on long-term plans and to make some

speculative assumptions about future development.

A cumulative impact assessment has been conducted for each environmental discipline being evaluated as part of this Draft EIS/EIR. To accomplish the evaluation, a list of probable future projects with the potential to produce related or cumulative impacts has been identified (refer to Section 4.19.2 below) to supplement the information already available regarding past and present projects. The future projects were identified through review of existing plans including those of the municipalities within the area of potential impact (API) and regional long-term plans for economic and land use and transportation development, the region's and the Federal Transportation Improvement Program (FTIP), the high-speed rail program plan, and utility providers' long-term plans as available. This list is subject to the limitations described above due to the long-term build out of the proposed build alternatives.

This evaluation summarizes expected cumulative impacts produced by these projects and references any additional information that may be used to help determine the impacts.

The methodology used for this analysis follows *CEQA Guidelines* (Section 15130). The cumulative impact discussion for each specific discipline being assessed in this Draft EIS/EIR is intended to reflect the potential severity of the impacts and the likelihood of their occurrence. The focus is on the various projects' contributions to the cumulative impact for each discipline assessed.

For those disciplines where the combined cumulative impact associated with the build alternatives and the other listed projects is not significant, this section briefly discusses why the cumulative impact is not significant. Note that the *CEQA Guidelines* indicate that the mere existence of significant cumulative impacts caused by other projects alone does not constitute substantial evidence that the proposed project's incremental effects are cumulatively considerable.

4.19.2 Affected Environment/Existing Conditions

The cumulative context includes the geographic area, timeframe, and/or type of projects that would contribute to the potential cumulative effect. This context differs for each discipline. Each discipline identifies a relevant geographic area for evaluation of direct, indirect, and cumulative impacts. The geographic range considered for the cumulative analysis can vary based on the resource area.

The forecast approach was used in the analysis of cumulative operational impacts for the transportation and air quality disciplines. This approach was also used in the analysis of cumulative impacts for the climate change discipline, which combined construction and operational emissions per the South Coast Air Quality Management District's recommendation. The general geographic range used to forecast cumulative conditions for these three disciplines was the Southern California Association of Governments (SCAG) region, which also assumed operation of the Metro rail projects identified in Chapter 2, Alternatives Considered. For all other disciplines, the list of reasonably foreseeable related projects was used to determine the scope of analysis for cumulative impacts, including the cumulative construction impacts analysis for the transportation and air quality disciplines. For these disciplines, the geographic range considered for the cumulative analysis is generally located within about one-half mile in each direction of each proposed build alternative, since many transit agencies consider this distance as the typical area of influence for a high capacity transit project such as the Eastside Transit Corridor Phase 2 Project.

Available plans of the following jurisdictions and agencies were reviewed:

- Eastern portion of East Los Angeles (unincorporated)
- Alameda Corridor East Construction Authority

- California High-Speed Rail (HSR) Authority
- Caltrans
- Commerce
- Los Angeles County
- Montebello
- Monterey Park
- Pico Rivera
- Rosemead
- Santa Fe Springs
- South El Monte
- Southern California Association of Governments
- Southern California Edison
- Whittier

The types of plans reviewed included the cities' and region's long-term plans for economic and land use and transportation development, FTIP, high-speed rail program plan, and utility providers' long-term plans as available.

Since the horizon year for this Draft EIS/EIR is 2035, it is likely that many projects for development in the later years of the period to be assessed are unknown at this time. Nonetheless, a concentrated effort was made to find out what current and future projects are now known.

A number of development projects are currently under construction, in the planning stages, or proposed within the vicinity of (approximately a one-half-mile radius) or adjacent to the Eastside Transit Corridor Phase 2 LRT build alternatives. These projects are listed in **Tables 4.19-1** and **4.19-2**, and their locations are shown in **Figures 4.19-1** and **4.19-2**.

In addition, the California High-Speed Rail Study proposes an alignment alternative for the Los Angeles to San Diego via Ontario project that would use the SR 60 corridor in the Eastside Transit Corridor Phase 2 project area; this segment is currently not funded.

Table 4.19-1. Recent and Future Development Activity in the Vicinity of the SR 60 LRT Alternative

Map No.	Project	Location	Size ¹	Land Use	Status	Estimated Completion ¹
1	Atlantic/Garvey Redevelopment	Various locations in Monterey Park bounded by the city boundary to the east and Atlantic Blvd., Garvey Avenue, and SR 60	520 acres	Commercial	Proposed	-----
2	South Garfield Village Specific Plan	Garfield Avenue and Pomona Boulevard	20 acres	Transportation	Planned	Winter 2015
3	Southern California Edison Tehachapi Renewal Transmission Project	Near Garfield Avenue and at Whittier Narrows	250 miles	Utility	Under construction	2015
4a	Remediation of Operating Industries, Inc. (OII) North Parcel	North of SR 60 west of Paramount Blvd., Monterey Park (also the future site of Cascade Market Place)	45 acres	Commercial	Completed	2009
4b	Monterey Park Market Place ²	Same site as remediation of OII North Parcel once work is completed	51 acres	Commercial	Approved	2016
5	SR 60 Paramount Boulevard Bridge Repair	SR 60 and Paramount Blvd. intersection	128 feet wide, 32 feet wide	Transportation	Completed	2012
6	Merged Redevelopment	Various locations bounded by Montebello city limits	---	Commercial	Proposed	-----
7	Montebello Hills Specific Plan	Montebello Hills	488 acres	Residential	Planned	2022
8	San Gabriel Blvd. Intersection Improvements	Intersection of San Gabriel Blvd./SR 60 WB and intersection of Walnut Grove Avenue/San Gabriel Blvd. in Rosemead	---	Transportation	Completed	2013

Table 4.19-1. Recent and Future Development Activity in the Vicinity of the SR 60 LRT Alternative (continued)

Map No.	Project	Location	Size ¹	Land Use	Status	Estimated Completion ¹
9	Whittier Narrows Recreation Area Master Development Plan Input	Whittier Narrows Flood Control Basin	1,258 acres	Recreation/Open Space	Proposed	As funding is available
10	Emerald Necklace	Interconnected series of parks and trails in a 17-mile loop around Rio Hondo and San Gabriel River	Unifying ≈ 1,500 acres of park space	Open Space	Planned	As funding is available
11	Whittier Narrows Dam Safety Modification	Whittier Narrows Flood Control Basin	--	Safety Infrastructure	Planned	----
12	Santa Anita and Merced Avenue Mixed-Use	Santa Anita and Merced Avenues, South El Monte	30 single family tract homes; 6.37 acres	Mixed-Use	Under construction	----
13	San Gabriel River Discovery Center	1000 North Durfee Avenue, South El Monte	11.5 acres	Educational/Recreational	Planned	----
14	Durfee Housing	1181 Durfee Avenue, South El Monte	116 town homes	Residential	Under construction	Spring 2016
15	Michael Hunt Drive Mixed-Use	Peck Road and Michael Hunt Drive, South El Monte	72 senior apartment units; 21,000 square feet	Mixed-Use	Completed	2012
16	Whittier Narrows 66-kilovolt Underground Re-Route of Subtransmission Line	Intersection of Peck Road and Durfee Avenue, South El Monte	3,300 linear feet	Utility	Under construction	2015
17	Plaza del Sol Shopping Center	North of SR 60 near the Peck Road exit	168,291 square feet	Commercial	Completed	2010

Table 4.19-1. Recent and Future Development Activity in the Vicinity of the SR 60 LRT Alternative (continued)

Map No.	Project	Location	Size ¹	Land Use	Status	Estimated Completion ¹
18	Puente Hills Intermodal Facility	On Pellissier Place, south of I-605 and west of SR 60	17.2 acres	Transportation fully integrated waste-by-rail system to transport containerized municipal solid waste to the Mesquite Regional Landfill in Imperial County for disposal	Under construction	2014
19	Southeast Water Reliability Project	Within road right-of-way (ROW) in cities of Pico Rivera and Montebello, including Montebello Golf Course	4.5 miles	Water pipeline. Water recycling system to deliver 800 acre feet per year of recycled water	Completed	2013

Source: AECOM, CDM Smith 2014.

Notes:

¹ --- = Information not provided in sources investigated.

² Remediation has been completed. However, there are ongoing activities to remove and burn subterranean gas from the site. The market place will be built around existing facilities used to remove the gas since those facilities will still be operating after the market place is opened for business. In addition, the Monterey Park Market Place EIR identifies the berm along the freeway as having contaminated soil, but it implies that the contamination is lead from the freeway, not from the landfill. The Market Place project will remove the contaminated soil from the berm.

Table 4.19-2. Recent and Future Development Activity in the Vicinity of the Washington Boulevard LRT Alternative

Map No.	Project	Location	Size ¹	Land Use	Status	Estimated Completion ¹
19	Southeast Water Reliability Project	Within road ROW in cities of Pico Rivera and Montebello, including Montebello Golf Course	4.5 miles	Water pipeline. Water recycling system to deliver 800 acre feet per year of recycled water	Completed	2013
20	High-Speed Rail Crossing at Garfield Avenue	Garfield Avenue, Commerce	---	Transportation	Planned	2029
21	East-West Freight Corridor Crossing at Garfield Avenue	Garfield Avenue, Commerce	---	Transportation	Proposed	----
22	Intersection Reconstruction at Flotilla Street and Garfield Avenue	Intersection of Flotilla Street and Garfield Avenue, Commerce	---	Transportation	Proposed	----
23	Montebello Business Facade Improvements	Whittier Avenue from Garfield Avenue east to Concourse Avenue, Montebello	---	Commercial	On hold	----
24	Montebello Blvd. Grade Separation	Montebello Blvd. and Olympic Blvd., Montebello	---	Transportation	Planned	2016
25	Whittier Blvd. Specific Plan and Streetscape	Whittier Blvd., Montebello	---	Residential	Construction starts end of July 2010	----
26	Pico Rivera Commerce Center	Rosemead Blvd. and Danbridge Street in Pico Rivera	100 acres	Commercial	Completed	2006
27	San Gabriel River Coastal Basin Spreading Ground Pump Station and Pipeline Project	Beneath Mines Avenue between Rio Hondo and San Gabriel Coastal Basin Spreading Grounds	6,000 linear feet	Water pipeline. Installation of concrete pipe to allow greater water conservation potential	Completed	2012

Table 4.19-2. Recent and Future Development Activity in the Vicinity of the Washington Boulevard LRT Alternative (Continued)

Map No.	Project	Location	Size ¹	Land Use	Status	Estimated Completion ¹
28	Passons Blvd. Underpass	Passons Blvd. and Slauson Avenue, Pico Rivera	---	Transportation	Completed	December 2012
29	Proposition 1B - Road Improvements	Pico Rivera	---	Transportation	Under Construction	-----
30	Raised Median Installation along Washington Blvd.	Washington Blvd., within Pico Rivera city limits	---	Transportation	Planned	-----
31	Pioneer Blvd. Grade Separation (Measure R)	Santa Fe Springs	---	Transportation	Planned	Subject to funding availability
32	Santa Fe Springs Transitional Living Center Salvation Army Expansion	12000 E. Washington Blvd., Santa Fe Springs	10 units	Residential	Completed	2014
33	Whittier Blvd. Specific Plan in Whittier	Whittier Blvd. and Washington Blvd. from the Washington/Whittier Santa Fe Springs intersection to the western limit of Whittier	---	Commercial	Planned	2030
34	Presbyterian Intercommunity Hospital Expansion	12401 Washington Blvd., Whittier	200,449 square feet	Medical Facility	Completed	2014
35	Fred C. Nelles Redevelopment Site	11850 East Whittier Blvd., Whittier, CA 90601	74 acres	Commercial/ Residential	Proposed	2020
36	Whittier Blvd. Revitalization	Washington Blvd. Between I-605 and Colima Road in Whittier	---	Commercial	Proposed	-----
37	Whittier Uptown Specific Plan	Whittier Uptown	220 acres	Commercial	Planned	-----

Source: AECOM, CDM Smith 2014.

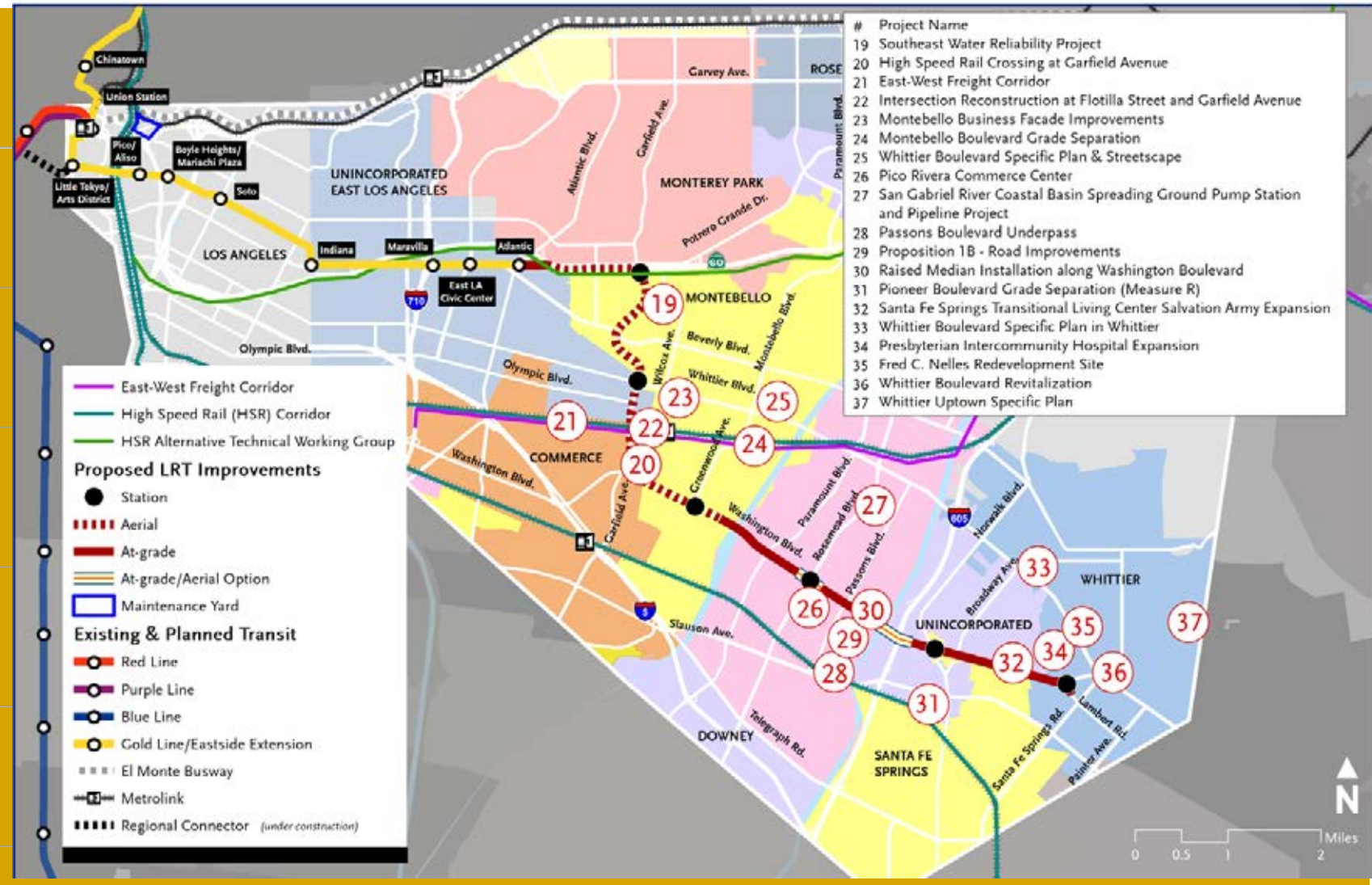
Notes:

¹ --- = Information not provided in sources investigated.



Source: AECOM, CDM Smith 2014.

Figure 4.19-1. Recent and Future Development Activity along the SR 60 LRT Alternative



Source: AECOM, CDM Smith 2014.

Figure 4.19-2. Recent and Future Development Activity along the Washington Boulevard LRT Alternative

An alignment alternative for the Los Angeles to Anaheim HSR project would traverse the Los Angeles to San Diego Rail Corridor (LOSSAN) through the project area and would cross the proposed Washington Boulevard LRT Alternative along Garfield Avenue between Olympic and Washington Boulevards where the LRT guideway would be located on aerial structure. Funding for this segment has been identified and a Draft EIS/EIR is being prepared. The LOSSAN corridor is currently used by Burlington Northern Santa Fe, Metrolink, and Amtrak. These high-speed rail segments are not listed in Tables 4.19-1 and 4.19-2 but are illustrated in Figures 4.19-1 and 4.19-2. In addition to HSR being considered along the SR 60 corridor, Caltrans is also considering widening the SR 60 but there are no plans or funding for this project at this time.

SCAG has established a vision for a regional goods movement system through the Comprehensive Regional Goods Movement Plan and Implementation Strategy. The plan presents a long-range comprehensive plan for the goods movement system in Southern California. The plan includes projects and strategies to promote the fluid movement of goods and people. The plan and vision are critical components of SCAG's adopted *2012-2035 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS)*.

As part of the 2012–2035 RTP/SCS, SCAG has identified strategies to relieve congestion, reduce delay and harmful emissions, and improve safety on major truck corridors. The SCAG 2012-2035 RTP/SCS identifies a corridor concept, known as the East-West Freight Corridor, which would connect to the north end of the I-710 freight corridor and roughly parallel the Union Pacific Railroad Los Angeles Subdivision before finally following a route adjacent to SR 60 just east of SR 57. Additional study of this alignment concept is being conducted.

Communities along the SR 60 LRT and Washington Boulevard LRT Alternative corridors have expressed

interest in extending the Eastside Transit Corridor Phase 2 project, if developed in their area, farther east from Peck Road or Lambert Road, respectively. However, no plans have been developed and no funding is in place at this time for such projects.

The U.S. Army Corps of Engineers (USACE) is currently conducting a Dam Safety Modification Study for the Whittier Narrows Dam. The Whittier Narrows Dam received a Dam Safety Action Class II (DSAC II) rating in December 2008. A DSAC II rating is given to dams where failure could begin during normal operations or be initiated as the consequence of an event. USACE will develop and evaluate scenarios to modify the dam to withstand failure during rare events. A Dam Safety Modification Study is similar to a feasibility study, with a similar projected duration of two to three years. The result of the study will be a recommended mitigation plan that will undergo peer review, go through an approval process and, depending on the availability of funds, ultimately be designed and constructed. Metro will coordinate with USACE regarding safety modifications to the Whittier Narrows Dam if the SR 60 LRT Alternative is selected as the locally preferred alternative (LPA). In addition, construction of the SR 60 LRT Alternative would not interfere with safety modifications to the Whittier Narrows Dam.

4.19.3 Environmental Impacts/Environmental Consequences

This section summarizes the cumulative impact assessment conducted for all of the environmental disciplines. (Refer to Appendix FF, Cumulative Impacts Technical Memorandum, and the separate environmental discipline technical memoranda appendices of this Draft EIS/EIR for additional information specific to a particular topic.)

Table 4.19-3 summarizes the results of the cumulative impacts analysis.

Table 4.19-3. Comparison of the Cumulative Impacts of the Alternatives¹

Environmental Category	Alternative			
	No Build	TSM	SR 60 LRT ²	Washington Boulevard LRT ³
Transportation	Impact not cumulatively considerable	Impact not cumulatively considerable with mitigation. <u>Benefits:</u> Reduction in vehicle miles traveled (VMT) and congestion. Increased transit ridership and reduced travel times.	Same as TSM Alternative	Same as TSM Alternative
Displacement/Relocation	Impact not cumulatively considerable	Impact not cumulatively considerable	Impact not cumulatively considerable with mitigation	Impact not cumulatively considerable with mitigation
Communities/Neighborhoods	Impact not cumulatively considerable	Impact not cumulatively considerable	Impact not cumulatively considerable with mitigation <u>Benefits:</u> Transit-dependent populations would benefit from transit service improvements; Access to transit for planned developments in the area; New and enhanced opportunities for businesses to locate in the area, in conjunction with proposed developments.	Impact not cumulatively considerable with mitigation <u>Benefits:</u> Transit-dependent populations would benefit from transit service improvements; Access to transit for planned developments in the area; New and enhanced opportunities for businesses to locate in the area, in conjunction with proposed developments.
Noise/Vibration	Impact not cumulatively considerable	Impact not cumulatively considerable	Impact not cumulatively considerable with mitigation	Impact not cumulatively considerable with mitigation
Ecosystems/Biological Resources	Impact not cumulatively considerable	Impact not cumulatively considerable	Impact not cumulatively considerable	Impact not cumulatively considerable

Table 4.19-3. Comparison of the Cumulative Impacts of the Alternatives¹ (continued)

Environmental Category	Alternative			
	No Build	TSM	SR 60 LRT ²	Washington Boulevard LRT ³
Visual/Aesthetics	Impact not cumulatively considerable	Impact not cumulatively considerable	Impact not cumulatively considerable	Impact cumulatively considerable: Visual impacts would be cumulatively considerable along Segment 2, Garfield Avenue to the Union Pacific Railroad (UPRR). Impacts cannot be mitigated to less than significant.
Geotechnical/ Subsurface/Seismic	Impact not cumulatively considerable	Impact not cumulatively considerable	Impact not cumulatively considerable with mitigation	Impact not cumulatively considerable with mitigation
Hazardous Materials	Impact not cumulatively considerable	Impact not cumulatively considerable	Impact not cumulatively considerable with mitigation	Impact not cumulatively considerable with mitigation
Water Resources	Impact not cumulatively considerable	Impact not cumulatively considerable	Impact not cumulatively considerable with mitigation	Impact not cumulatively considerable with mitigation
Cultural Resources	Impact not cumulatively considerable	Impact not cumulatively considerable	Historic Properties: No cumulative impacts Archaeological and Paleontological Resources: Impact not cumulatively considerable with mitigation	Historic Properties: Impact not cumulatively considerable with mitigation Archaeological and Paleontological Resources: Impact not cumulatively considerable with mitigation
Safety/Security	Impact not cumulatively considerable	Impact not cumulatively considerable	Impact not cumulatively considerable with mitigation	Impact not cumulatively considerable with mitigation

Table 4.19-3. Comparison of the Cumulative Impacts of the Alternatives¹ (continued)

Environmental Category	Alternative			
	No Build	TSM	SR 60 LRT ²	Washington Boulevard LRT ³
Energy Resources	Impact not cumulatively considerable	Impact not cumulatively considerable	Impact not cumulatively considerable	Impact not cumulatively considerable
Climate Change	Impact not cumulatively considerable	Impact not cumulatively considerable	Impact not cumulatively considerable	Impact not cumulatively considerable
Parklands/Other Community Facilities	Impact not cumulatively considerable	Impact not cumulatively considerable	Impact not cumulatively considerable	Impact not cumulatively considerable
Air Quality/Health Risk	Impact not cumulatively considerable	Impact not cumulatively considerable	Impact not cumulatively considerable with mitigation	Impact not cumulatively considerable with mitigation
Land Use/Development	Impact not cumulatively considerable	Impact not cumulatively considerable	Impact not cumulatively considerable with mitigation Benefits: Would encourage transit-supportive development and increase transit ridership; would provide alternative to auto to access planned development in the area.	Impact not cumulatively considerable Benefits: Would encourage transit-supportive development and increase transit ridership; would provide alternative to auto to access planned development in the area.
Environmental Justice	Impact not cumulatively considerable	Impact not cumulatively considerable	Impact not cumulatively considerable with mitigation	Impact not cumulatively considerable with mitigation

Table 4.19-3. Comparison of the Cumulative Impacts of the Alternatives¹ (continued)

Alternative				
Environmental Category	No Build	TSM	SR 60 LRT ²	Washington Boulevard LRT ³
Economic/Fiscal	Impact not cumulatively considerable	Impact not cumulatively considerable	Impact not cumulatively considerable with mitigation Benefits: Travel time cost savings and mobility. Would further goals and policies for revitalization and investment within project area.	Impact not cumulatively considerable with mitigation Benefits: Travel time cost savings and mobility. Would further goals and policies for revitalization and investment within project area.

Notes:

¹ Table describes the impacts per CEQA. CEQA and NEPA each have specific terms for evaluating impacts. Note that the CEQA determination of “impact not cumulatively considerable,” also termed as “less than significant,” is roughly similar to a finding of “no adverse cumulative effect” for NEPA purposes for the environmental categories presented. A CEQA determination of “impact cumulatively considerable,” also termed “significant impact,” is roughly similar to a finding of “adverse effect” for NEPA purposes. The benefits described are generally the same for both NEPA and CEQA.

² The cumulative impacts associated with the SR 60 LRT Alternative, with or without the North Side Design Variation, are the same because the features of the project that resulted in the findings for each category of impact evaluated for the SR 60 LRT Alternative are the same for the SR 60 North Side Design Variation.

³ The cumulative impacts of the Washington Boulevard LRT Alternative are the same regardless of whether the crossings at Rosemead Boulevard and the San Gabriel River/I-605 are at-grade or on aerial structure. This is because the features of the crossing at-grade or on aerial structure that resulted in the findings for each category of impact evaluated for each crossing location are the same regardless of whether the crossing is at-grade or on an elevated structure.

4.19.3.1 No Build Alternative

4.19.3.1.1 Impact Analysis

A variety of bus services are currently provided in the Eastside Transit Corridor Phase 2 project area, including Metro Local, Limited, Express, and Rapid buses as well as local bus lines. In addition to bus services, the No Build Alternative includes two Metrolink commuter rail routes, each of which has one station located within the project area: Riverside Line and Orange County/91 Lines. The Metrolink stations would be served by bus.

The No Build Alternative would not result in adverse direct or indirect impacts related to the following environmental issues: traffic, circulation, and parking; displacement and relocation; community and neighborhoods; noise and vibration; ecosystems and biological resources; visual and aesthetic impacts; geotechnical, subsurface, and seismic hazards; hazardous materials; water resources; cultural resources; safety and security; energy resources; climate change; parklands and other community facilities; air quality and health risk impact; land use and development; environmental justice; or economic and fiscal. Therefore, this alternative would not contribute to any significant cumulative impacts with respect to these environmental resources.

The No Build Alternative would maintain bus services in the Eastside Transit Corridor Phase 2 project area; however, it would not include new bus lines nor would it include major capital investment in mass transit infrastructure and service in the corridor. Since congestion in the corridor is anticipated to increase and the No Build Alternative would not include additional transit service, the existing transit service would be affected by the increased congestion. This would in turn increase commute times and potentially restrict mobility for the transit-dependent population in the Eastside Transit Corridor Phase 2 project area.

Given the above, this alternative would not include the proposed transit improvements, and thus would

not contribute to a cumulative beneficial effect on transit, as is the case for the other alternatives.

4.19.3.1.2 Mitigation Measures

No feasible mitigation (other than construction of one of the build alternatives) exists to minimize the environmental justice impact associated with the No Build Alternative.

4.19.3.1.3 Impacts Remaining After Mitigation

NEPA Finding

The No Build Alternative would not contribute to any adverse cumulative effects related to the following environmental issues: traffic, circulation, and parking; displacement and relocation; community and neighborhoods; noise and vibration; ecosystems and biological resources; visual and aesthetic impacts; geotechnical, subsurface, and seismic hazards; hazardous materials; water resources; cultural resources; safety and security; energy resources; climate change; parklands and other community facilities; air quality and health risk impact; land use and development; environmental justice; or economic and fiscal.

The No Build Alternative would not provide the positive benefits of mobility and travel time and cost savings of the other alternatives.

CEQA Determination

The No Build Alternative would not contribute to a significant cumulative impact with respect to the following environmental issues: traffic, circulation, and parking; displacement and relocation; community and neighborhoods; noise and vibration; ecosystems and biological resources; geotechnical, subsurface, and seismic hazards; hazardous materials; water resources; cultural resources; safety and security; energy resources; climate change; parklands and other community facilities; air quality and health risk impact; land use and development; or economic and fiscal.

The No Build Alternative would not provide the positive benefits of mobility and travel time and cost savings of the other alternatives.

4.19.3.2 TSM Alternative

4.19.3.2.1 Impact Analysis

The TSM Alternative would not result in adverse direct or indirect impacts related to the following environmental issues: displacement and relocation; community and neighborhoods; noise and vibration; ecosystems and biological resources; visual and aesthetic impacts; geotechnical, subsurface, and seismic hazards; hazardous materials; water resources; cultural resources; safety and security; energy resources; climate change; Section 4(f) protected resources or parklands and other community facilities; air quality and health risk; land use and development; environmental justice; or economic and fiscal. Therefore, this alternative would not contribute to significant cumulatively considerable impacts with respect to these environmental resources.

Transit, Traffic, Circulation, and Parking:

Construction impacts would be temporary and intermittent during the overall construction period for the TSM Alternative. As continued development is planned throughout the project area, individual development projects may occur simultaneously adjacent to the project alignment. This may result in a short-term cumulative adverse effect during construction. This alternative includes measures to minimize the anticipated adverse effects during construction, which would reduce the project's contribution to cumulative construction effects.

The TSM Alternative would expand regional transportation choices that aim to improve overall regional mobility. As such, the TSM Alternative would result in a decrease in VMT due to the increased use of transit. The TSM Alternative would therefore result in a beneficial cumulative effect on area-wide traffic conditions.

The TSM Alternative would have a beneficial impact on transit, as it would result in increases to transit ridership and decreases in travel times on a regional basis. Locally, this alternative would not have a significant impact on transit operations and circulation as there would be minimal impacts on individual bus lines or stops. Increase in transit use

also reduces the reliance on automobiles and generally reduces the demand for parking on a regional basis. In general, it is not anticipated that the TSM Alternative would affect overall parking conditions.

Operation of the increased transit service associated with the TSM Alternative would add pedestrians and bicyclists to the current facilities in the areas surrounding stops and stations. Although there would also be an increase in pedestrian and bicycle activity in the vicinity of individual development projects, the cumulative result of these new users would not result in a significant impact on pedestrian or bicycle conditions.

4.19.3.2.2 Mitigation Measures

Chapter 3, Transportation Impacts and Mitigation, and Table ES-2 outlines mitigation measures that would be implemented to mitigate potentially significant construction-related impacts.

4.19.3.2.3 Impacts Remaining After Mitigation

NEPA Finding

The TSM Alternative would not contribute to any adverse cumulative effects related to the following environmental issues: displacement and relocation; community and neighborhoods; noise and vibration; ecosystems and biological resources; visual and aesthetic impacts; geotechnical, subsurface, and seismic hazards; hazardous materials; water resources; cultural resources; safety and security; energy resources; climate change; Section 4(f) protected resources; air quality and health risk; land use and development; environmental justice; or economic and fiscal.

With implementation of mitigation measures, the TSM Alternative would not contribute to any adverse cumulative effects with respect to transit, traffic, circulation, and parking.

The TSM Alternative would expand regional transportation choices that aim to improve overall regional mobility. As such, the TSM Alternative would result in decreases in VMT and regional travel times due to the increased use of transit. The TSM

Alternative would therefore result in a beneficial cumulative effect on area-wide traffic conditions.

Locally, this alternative would not have an adverse effect to transit operations or circulation as there would be minimal effects on individual bus lines or stops. Increase in transit use also reduces the reliance on automobiles and generally reduces the demand for parking on a regional basis.

CEQA Determination

The TSM Alternative would not contribute to a significant cumulative impact with respect to the following environmental issues: displacement and relocation; community and neighborhoods; noise and vibration; ecosystems and biological resources; visual and aesthetic impacts; geotechnical, subsurface, and seismic hazards; hazardous materials; water resources; cultural resources; safety and security; energy resources; climate change; parklands and other community facilities; air quality and health risk; land use and development; or economic and fiscal.

With implementation of mitigation measures, the TSM Alternative would not result in a considerable contribution to cumulative impacts with respect to transit, traffic, circulation, and parking.

As indicated above, the TSM Alternative would result in decreases in VMT and regional travel times due to the increased use of transit. The TSM Alternative would therefore result in a beneficial cumulative impact on area-wide traffic conditions.

Locally, this alternative would not have a significant impact on transit operations and circulation as there would be minimal impacts on individual bus lines or stops. Increase in transit use also reduces the reliance on automobiles and generally reduces the demand for parking on a regional basis.

4.19.3.3 SR 60 LRT Alternative

4.19.3.3.1 Impact Analysis

Cumulative impacts associated with the SR 60 LRT Alternative, with or without the North Side Design Variation, are the same because the features of the project that resulted in the findings for each

category of impact evaluated for the SR 60 LRT Alternative are the same for the SR 60 North Side Design Variation. Therefore, reference to the SR 60 LRT Alternative in this discussion refers to both the SR 60 LRT Alternative and its North Side Design Variation.

Transit, Traffic, Circulation, and Parking:

Construction impacts would be temporary and intermittent during the overall construction period for the SR 60 LRT Alternative. As continued development is planned throughout the project area, individual development projects may occur simultaneously adjacent to the project alignment. This may result in a short-term cumulatively considerable adverse effect during construction. The SR 60 LRT Alternative includes measures to minimize the anticipated adverse effects during construction, which would reduce the project's contribution to cumulative construction effects.

The SR 60 LRT Alternative would expand regional transportation choices and aims to improve overall regional mobility. As such, the SR 60 LRT Alternative would result in decreases in VMT and travel time compared to the No Build Alternative due to the increased use of transit. The SR 60 LRT Alternative would therefore result in a beneficial cumulative effect on area-wide traffic conditions. In addition, the SR 60 LRT Alternative would not have an adverse effect on local transit operations and circulation as there would be minimal impacts to individual bus lines or stops.

However, the SR 60 LRT Alternative would result in substantial adverse effects to traffic operations due to the concentration of vehicles traveling to and from the proposed park and ride and drop-off/pick-up facilities. The SR 60 LRT Alternative includes measures to minimize the anticipated adverse effects on intersections, which would also reduce the project's contribution to cumulative effects.

At the proposed station locations with areas of limited on-street and off-street parking availability, the SR 60 LRT Alternative could result in a substantial adverse effect if the on-site parking

supply does not meet the demands of the transit users and land uses generating parking demand. However, transit use reduces reliance on automobiles and generally reduces demand for parking on a regional basis. Given that development around the stations is likely to be transit oriented, the proposed project may contribute to some cumulative effects on parking. However, the SR 60 LRT Alternative includes measures to minimize the anticipated adverse effects on parking, which would reduce the project's contribution to cumulative effects.

Operation of the increased transit service associated with the SR 60 LRT Alternative would add pedestrians and bicyclists to the current facilities in the areas surrounding stops and stations. Although there would also be an increase in pedestrian and bicycle activity in the vicinity of individual development projects, the cumulative result of these new users would not cause an adverse effect on pedestrian or bicycle conditions. However, the SR 60 LRT Alternative would have substantial adverse effects adjacent to the proposed stations if adequate pedestrian facilities (such as crosswalks and pedestrian push buttons at crossings) are not provided. In combination with increases in pedestrians due to individual development projects, this would result in a cumulatively considerable adverse effect on pedestrian conditions. However, the SR 60 LRT Alternative includes measures to minimize the anticipated adverse effects on pedestrians, which would also reduce the project's contribution to cumulative effects.

Displacement and Relocation: A project may have cumulatively considerable impacts associated with displacement, even when mitigated, if it would contribute cumulatively to displacement of the same land uses or important resources. It is anticipated that loss of jobs and business activity due to displacement associated with the SR 60 LRT Alternative would be retained with relocation in the project area or region. Thus, cumulative impacts due to job loss and business activity would not be significant. To the extent that similar high-capacity transit projects tend to spur additional economic

development, the project could have a beneficial cumulative impact on creation of new businesses and jobs in the project area.

The parcel located at 1181 Durfee Avenue in the city of South El Monte was identified for acquisition as part of the Peck Road station park and ride facilities. However, due to recent developments on this property, this parcel would not be acquired if the SR 60 LRT Alternative is selected as the LPA. Park and ride spaces identified for this station would be accommodated on the remaining properties identified for acquisition for this station and associated park and ride facilities.

It is estimated that approximately 895 off-street parking spaces would be displaced as a result of construction of the SR 60 LRT Alternative. Of these, approximately 725 parking spaces would require consideration of mitigation measures for replacement parking to help offset the loss. The remaining estimated 170 displaced parking spaces are subject to full property acquisition. The parking loss associated with the full property acquisitions would not require replacement because it serves the acquired business locations, and does not substantially serve a broader parking demand or customer base.

Where permanent parking displacement that serves multiple businesses would occur, parking would be replaced by Metro through a combination of a reconfigured site, optimization of parking at nearby lots, shared parking arrangement with new Metro facilities, and partial offset of parking demand by the increased public transit access provided by the proposed project.

It is anticipated that new developments expected by 2035, which represent mostly residential and commercial uses, would provide the required parking for their occupants. The stock of publicly accessible parking would not be greatly reduced. The removal of parking is not anticipated to affect the local community or business operations.

Overall, the loss of publicly accessible surface parking due to the proposed project in conjunction

with other planned developments would not represent a cumulative loss.

Typically, transit projects themselves serve as mitigation for the loss of parking because they would remove vehicles from the road, thereby reducing the demand for parking. The Eastside Transit Corridor Phase 2 Project would provide new non-auto access to the region and its activity centers. Therefore, the proposed SR 60 LRT Alternative would partially offset potential adverse impacts due to loss of parking. Some cumulative impacts due to parking loss would remain, but they would not be significant.

Community and Neighborhoods: The cumulative impacts discussion for community and neighborhoods focuses on cities and Census designated places (CDPs) where the SR 60 LRT Alternative alignment would be constructed. The LRT alignment would pass through the following cities and CDPs: East Los Angeles, Montebello, Monterey Park, Rosemead, and South El Monte.

Given the proposed park and ride lots and connecting bus service at many of the stations, other surrounding communities and neighborhoods may benefit from the SR 60 LRT Alternative.

Social and Physical Character: None of the projects identified in Section 4.19.2 would cause adverse cumulative impacts to social and community character in the project area. Some of the proposed projects, such as the mixed-use development at Santa Anita Avenue and Plaza del Sol shopping center at Peck Road, would complement the urban design elements of the SR 60 LRT Alternative stations and yield beneficial cumulative impacts. Construction activities for these adjacent projects would also occur near the freeway ROW, but they would not be large enough in scale to substantially alter the social and physical character of the area, even if they do occur at the same time as Eastside Transit Corridor Phase 2 construction.

Crime and Public Health/Safety/Services: LRT stations and facilities can be perceived as potential safety hazards and attractive locations for illegal

activities. However, Metro would provide security services at all Eastside Transit Corridor Phase 2 facilities as needed to prevent an increase in criminal activity. The stations themselves would become centers of pedestrian activity during train operation, and this may create a beneficial public presence in the surrounding community that would dissuade criminal activity. All LRT facilities and crossings would be designed to ensure safety and minimize potential hazards. After mitigation, no adverse impacts regarding crime, public health, safety, or public services would remain. No contribution to cumulative impacts would occur.

Community Resources and Events: Some construction projects in the vicinity of the SR 60 LRT Alternative would require additional road closures in the vicinity of community events and resources if they would occur at the same time as the LRT construction. This would lengthen traffic and pedestrian detours and cause additional delay. Metro would coordinate with any simultaneous construction projects in the area to minimize detours and accommodate access to community events. After mitigation, no significant adverse impacts would remain and no contribution to cumulative impacts would occur.

Minority, Low-Income, Senior Citizen, and Disabled Persons: Construction of the SR 60 LRT Alternative would occur primarily in the SR 60 ROW and in some off-street parcels surrounding the proposed station locations. None of these parcels contain services specifically for minority, low-income, senior citizen, or disabled persons, nor are these populations within the project area clustered near the proposed LRT alignment.

Minority, low-income, senior citizen, and disabled persons tend to be more dependent on transit service for mobility than other segments of the population, and they would likely benefit from the transit service improvements the SR 60 LRT Alternative would provide. All LRT stations and trains would be compliant with the Americans with Disabilities Act to ensure accessibility to all passengers.

No adverse impacts to minority, low-income, senior citizen, or disabled persons are expected, and therefore no contribution to adverse cumulative impacts on these populations would occur.

Viability of Local Businesses: Other construction projects that would require street closures in the vicinity of the SR 60 LRT Alternative would compound construction effects if they occur simultaneously. This would temporarily heighten the inconvenience of accessing nearby businesses. Metro would coordinate with other construction projects in the area to minimize street closures and maintain access to businesses. After mitigation, cumulative impacts would be less than significant.

The proposed developments, in conjunction with the LRT, would offer new and enhanced opportunities for new businesses to locate in the area or for existing businesses to relocate here. This potential cumulative impact would be beneficial.

Mobility: Other construction projects that would require street closures in the vicinity of the SR 60 LRT Alternative would temporarily reduce mobility further if they occur during the LRT construction phase. Metro would coordinate with other construction projects in the area to minimize street and sidewalk closures. After mitigation, cumulative impacts would be less than significant.

Population and Employment: Since little net population or employment changes would occur, the project would not result in a considerable contribution to cumulative population or employment changes.

Physical Division: Some of the other construction projects proposed in the vicinity of the SR 60 ROW, such as the Paramount Boulevard improvements, could also require temporary freeway crossing closures. This would compound the dividing effect of the closures needed for construction of the SR 60 LRT Alternative if they occur simultaneously. Metro would coordinate with other ongoing construction projects to ensure that any cumulative temporary physical division impacts are minimized. After

mitigation, significant cumulative impacts would be reduced to less than significant.

Noise and Vibration: Noise levels along the route would be somewhat increased by the presence of the SR 60 LRT Alternative, since it would involve operating transit vehicles. Some of the other planned projects in the area would also increase noise because they would result in increased travel, which would result in significant cumulative noise impacts. With implementation of all noise and vibration mitigation measures identified for the SR 60 LRT Alternative, all project-related noise and vibration impacts would be reduced to less than significant. Since the LRT project would provide an alternative source of transportation to many of the other planned projects as well as to other destinations in the area, it would reduce the number of auto trips and the noise levels associated with those foregone auto trips. Therefore, the SR 60 LRT Alternative would not contribute to cumulative impacts and may provide a beneficial overall effect.

Ecosystems and Biological Resources:

Construction activities associated with future projects have the potential to affect biological resources including sensitive habitats, migratory birds, locally protected trees, and wildlife corridors. Other ongoing and future construction projects would be required to implement mitigation measures to address any potential impacts to biological resources. With implementation of all ecosystems and biological resource mitigation measures, and given that the SR 60 LRT corridor would occur in a mostly urban area, the SR 60 LRT Alternative would not contribute to a cumulative impact with respect to biological resources.

Visual and Aesthetic Impacts: The SR 60 Freeway is a heavily traveled freeway serving commuters and large commercial vehicles. Given the short-term nature of construction activities, no adverse impacts would occur to visually-sensitive resources along the SR 60 LRT Alternative. Additionally, views of visual resources within the surrounding area would remain intact.

Other planned and/or proposed development projects throughout the project area have gone through or are going through the planning process. These future development projects, which consist mostly of transportation and commercial projects, would be subject to independent environmental review and mitigation in accordance with state and federal laws. Given the transportation and commercial nature of these projects proposed within an existing transportation corridor, adverse effects on visual quality and character from these proposed and reasonably foreseeable projects would not be expected. Additionally, none of these projects are expected to be under construction simultaneously with the SR 60 LRT Alternative. Therefore, in combination with other planned and approved projects in the area, construction of the SR 60 LRT Alternative would not contribute to a cumulatively significant impact on visual quality or character.

As indicated above, future development projects, which consist mostly of transportation and commercial projects, would be subject to independent environmental review and mitigation in accordance with state and federal laws. The SR 60 LRT Alternative would not result in direct or indirect nighttime illumination impacts during construction, nor would the alternative result in significant shade and shadow impacts. When limited construction activities associated with the SR 60 LRT Alternative do occur during nighttime hours, lighting would be directed toward the construction areas and no spillover lighting is anticipated. Therefore, the SR 60 LRT Alternative would not contribute to cumulative nighttime illumination. Equipment required for construction of columns and aerial stations would include drilling rigs, small bulldozers, large cranes, truck trailers to deliver pre-cast concrete girders, and related equipment. Falsework or precast girders would be lifted over active roads by large cranes and secured to the columns. Given the above and the lack of shade-sensitive land uses along the SR 60 LRT alignment, the potential for construction activities to result in shading and shadows along the SR 60

corridor would be minimal and the alternative would not contribute to cumulative shade and shadow impacts.

Visual impacts associated with the operation of the SR 60 LRT Alternative, with or without the North Side Design Variation, would be cumulatively considerable if combined with potentially similar impacts of existing, planned, and reasonably foreseeable development in the API.

The Monterey Park Market Place would be developed north of SR 60 on an area formerly used as a landfill (OII North Parcel), but it would be consistent with the surrounding urban character. The signage for this commercial development project would not substantially alter the existing urban character and is anticipated to be taller than the mechanically stabilized earth (MSE) wall associated with SR 60 North Side Design Variation. The MSE wall would not obstruct views of the proposed development, given that the wall would be lower than the berm located between the freeway ROW and the OII North Parcel property line. The MSE wall would include aesthetic treatments such as landscaping or concrete designs, which would not detract from visibility and would enhance the appearance of the freeway adjacent to the proposed Monterey Park Market Place development. No cumulative impacts to aesthetic resources and scenic vistas would occur.

Given the infrastructure-related nature of transportation projects proposed within an existing transportation corridor, cumulative adverse effects on visual quality and character would not be expected. Therefore, in combination with other planned and/or reasonably foreseeable future projects in the vicinity of the SR 60 alignment, operation of the SR 60 LRT Alternative, with or without the North Side Design Variation, would not contribute to a cumulatively significant impact on visual quality and character.

Both light and glare impacts associated with project operations are site-specific. Cumulative development within the surrounding areas could result in an increase in daytime glare and ambient

nighttime lighting. For instance, the proposed lighting on the buildings and signs of the Monterey Park Market Place would create new sources of light in the area that would contribute to cumulative light levels. However, the city of Monterey Park's Municipal Code requires all outdoor lighting in commercial zones to be shielded to prevent light spillage. The SR 60 LRT Alternative would not result in light and glare impacts during operation and related projects would be required to adhere to the applicable jurisdiction's nighttime lighting ordinance. Therefore, the SR 60 LRT Alternative and related projects would not result in a considerable contribution to significant cumulative light and glare impacts. In addition, the shade and shadow impacts from operations within the surrounding area would not be significant; consequently, the project would not result in a considerable contribution to cumulative shade and shadow impacts.

Geotechnical, Subsurface, and Seismic Hazards:

A number of development projects are currently under construction, in the planning stages, or proposed within the vicinity or adjacent to the SR 60 LRT Alternative alignment, as discussed in Section 4.19.2. Such projects have the potential to result in impacts related to geotechnical, subsurface, and seismic hazards during construction and/or operation.

A portion of the SR 60 LRT Alternative would be constructed adjacent to the South Parcel of the OII landfill, and the North Side Design Variation would be constructed adjacent to the North Parcel of the OII landfill. Given that several construction options have been developed for the foundation support of the elevated structures based on existing information and studies about the soils on the North and South Parcels, and vibration levels generated during construction would be below the damage criterion, vibration impacts on the overall slope stability would be minimized. However, as the project moves forward, final design will be based on site-specific conditions at the time and the alignment design and construction plans will be reviewed and approved by the U.S. Environmental Protection Agency (USEPA).

A segment of the SR 60 LRT Alternative east of San Gabriel Boulevard is located within the Alquist-Priolo Earthquake Fault zone. Accordingly, there is a potential for fault rupture along this portion of the alignment. Further engineering would be performed during advanced stages of design to confirm the limits of the fault zone to provide appropriate setback for foundation support. In addition, the results from geotechnical investigations would delineate the depth/thickness of the refuse in the vicinity of the OII landfill and the potentially loose and liquefiable soils within the young alluvial fan deposits.

As such, the SR 60 LRT Alternative would contribute to cumulative impacts associated with geotechnical, subsurface, and seismic hazards if other related projects in the area result in impacts related to geotechnical, subsurface, and seismic hazards; however, mitigation identified in Section 4.11, Geotechnical/Subsurface/Seismic/Hazardous Materials, would reduce potential impacts associated with geotechnical, subsurface, and seismic hazards for this alternative to less than significant. In addition, future development projects, which consist mostly of transportation and commercial projects, would be subject to independent environmental review and mitigation in accordance with state and federal laws to address any potential impacts related to geotechnical, subsurface, and seismic hazards. Therefore, the SR 60 LRT Alternative's incremental contribution to the cumulative impacts would not be cumulatively considerable.

Hazardous Materials: Construction of some of the related projects listed in Section 4.19.2 could result in hazardous impacts due to hazardous materials in soil and/or groundwater and the possible release of asbestos fibers from asbestos-containing material (ACM) or lead particles from lead-based paint (LBP) associated with building demolition. The additive effect of construction activities would result in cumulative impacts to human health or the environment through release of hazardous materials. Construction of the SR 60 LRT Alternative would contribute to cumulative impacts associated

with hazardous materials; however, mitigation identified in Section 4.11, Geotechnical/Subsurface/Seismic/Hazardous Materials, would reduce potential impacts associated with hazardous materials for the SR 60 LRT Alternative to less than significant. In addition, future development projects would be subject to independent environmental review and mitigation in accordance with state and federal laws to address any potential hazardous impacts. Therefore, the SR 60 LRT Alternative's contribution to cumulative impacts would not be cumulatively considerable.

Water Resources: Development of the SR 60 LRT Alternative and associated maintenance yard within the Mission Junction rail facility in combination with related renovation, new construction, and transportation projects identified in the vicinity or adjacent to the project area would result in cumulative impacts to water resources and hydrology.

The proposed Santa Anita Avenue station and park and ride facility would be located in the flood control basin of Whittier Narrows on elevated platforms and elevated structures supported by columns similar to those supporting the LRT guideway. Compensatory mitigation would be provided for the potential loss of flood storage capacity within the Whittier Narrows Flood Control Basin, and the structure would be designed to not impede the flow of floodwaters in any direction. Other planned and/or proposed development projects that would be located in or cross the Whittier Narrows Flood Control Basin (the Basin) would also be required to provide compensatory mitigation for the potential loss of flood storage capacity within the Basin.

The project area, which is within the Los Angeles River, Rio Hondo, and San Gabriel River Watersheds, is covered by urban uses. The existing drainage system in the watersheds consists of engineered storm channels and, therefore, would be expected to change little due to potential cumulative increases in stormwater runoff. It is not expected that any of the other reasonably foreseeable projects would result in a substantial change to the amount

of impervious land cover in the project area, or a substantial alteration of the drainage systems. Since the amount of runoff generated in the project area would not be expected to significantly increase due to development of surrounding projects, substantial increases in erosion, siltation, flooding, or exceedance of the stormwater drainage system would not be expected and cumulative impacts would be less than significant.

With regard to surface water and groundwater quality in the project area, each of the concurrent projects would be subject to applicable water quality regulations and thus would be required to prepare a storm water pollution prevention plan (SWPPP) for construction activities and to incorporate BMPs to control pollutant discharges. In addition, operation of all the related projects would be required, by Chapter 13.29, Storm Water and Urban Runoff Pollution Prevention Control and Standard Urban Stormwater Management Plan (SUSMP) of the Los Angeles Municipal Code, to submit and implement a SUSMP.

With compliance of applicable State Water Resources Control Board (SWRCB) permits and other approvals as well as implementation of mitigation measures for surface water quality, construction and operation of the SR 60 LRT Alternative would not result in a considerable contribution to potential cumulative water quality impacts.

Construction of the SR 60 LRT Alternative has the potential to encounter and release contaminated groundwater during shallow excavations along the alignment. There are Superfund areas along the alignment where groundwater is contaminated by chemical plumes. Additionally, there is potential for construction activities to disturb the OII landfill site and for hazardous waste materials to be released into groundwater. Mitigation proposed in Section 4.11, Geotechnical/Subsurface/Seismic/Hazardous Materials, would reduce potential impacts associated with hazardous materials to less than significant and the SR 60 LRT Alternative's

contribution to cumulative effects would also not be cumulatively considerable.

Overall, construction and operation of the SR 60 LRT Alternative would not result in a considerable contribution to significant cumulative water quality, hydrology, and/or drainage impacts.

Cultural Resources: There would be no adverse effect or significant impact on the only two historic properties located within the area of potential effect (APE) for the SR 60 LRT Alternative: the Helms Bakery and the Chinese Garden Restaurant. Therefore, the SR 60 LRT Alternative would not contribute to any cumulative impacts on historic properties.

Since significant buried cultural or paleontological resources may exist within the project area, and it is possible these materials could be unearthed during project excavation activities, construction of the SR 60 LRT Alternative could have the potential to disturb and destroy a significant archaeological resource or paleontological resource. If unmitigated, this disturbance of significant archaeological and paleontological resources in combination with other development projects discussed in Section 4.19.2 would result in significant cumulative impacts.

However, with the incorporation of project-level mitigation measures, the SR 60 LRT Alternative's contribution to archaeological and paleontological cultural resources impacts, if any are found during construction, it would not be considerable.

Therefore, construction of the SR 60 LRT Alternative would not result in a considerable contribution to potential cumulative cultural resource impacts.

Safety and Security: Related projects in the vicinity of or adjacent to the SR 60 LRT Alternative alignment have the potential to result in safety and/or security impacts during construction and/or operation. The SR 60 LRT Alternative would contribute to cumulative safety and security impacts during construction and operation. However, mitigation proposed in Section 4.16, Safety and Security, would reduce potential impacts to safety and security associated with this alternative to less

than significant, which would reduce the SR 60 LRT Alternative's contribution to the cumulative safety and security impacts to less than cumulatively considerable.

Energy Resources: Construction of the SR 60 LRT Alternative would result in less than significant impacts to energy resources. The proposed project, as well as renovation, new construction, and transportation projects in the vicinity of the proposed project, would be consistent with federal, state, and local regulations to conserve and reduce energy usage. Construction of the SR 60 LRT Alternative would require energy from both transportation fuels and Southern California Edison's (SCE) and Los Angeles Department of Water and Power's (LADWP) electricity supply.

SCE and LADWP are working to develop new renewable energy and energy efficient resources. The SR 60 LRT Alternative, and other potential projects in the area, would be consistent with applicable energy efficiency guidance set by SCE and LADWP. Potential cumulative impacts related to construction would be less than significant.

Both SCE and LADWP predict increases in electricity demand over the next decade. Both have increased their ability to serve the area by adding new facilities and increasing and diversifying their energy supplies. Operation of the SR 60 LRT Alternative would not result in a considerable contribution to cumulative impacts on energy.

Climate Change: The SR 60 LRT Alternative would be consistent with the 2012 RTP/SCS because it would improve regional transit by expanding the region's light rail service. In addition to the SR 60 LRT Alternative, other transit projects identified in the LRTP and in Section 4.19.2 would have an overall beneficial effect from the reduction in passenger vehicle use expected under the various transit improvements. An overall increase in emissions would not be expected when the other transit improvement projects are taken into consideration.

The SR 60 LRT Alternative would also result in a net decrease in GHG emissions when compared to the No Build Alternative and to the existing conditions (2010). As such, the SR 60 LRT Alternative would not contribute to cumulative impacts to climate change during operation because emissions would be less than significant. In addition, the SR 60 LRT Alternative would be consistent with the requirements of CARB's Scoping Plan and SB 375 because it would meet California's goal to increase mass transit. Therefore, under CEQA, GHG emissions associated with the SR 60 LRT Alternative would not be cumulatively considerable.

Parklands and Other Community Facilities:

Public Schools: None of the proposed developments identified in Section 4.19.2 would likely physically alter or disrupt the public schools located within the API for the SR 60 LRT Alternative, Bella Vista Elementary School or South El Monte High School. Therefore, the SR 60 LRT Alternative would not contribute to any potentially significant cumulative impacts on schools.

Emergency Services: None of the projects identified in Section 4.19.2 would involve alterations to the emergency service facility located within the API for the SR 60 LRT Alternative, the East Los Angeles Sheriff's Station. Therefore, no cumulative impacts would occur. Light rail can encourage, but does not cause, growth to occur, therefore no induced growth that could affect emergency service levels would occur.

Other Public Services: None of the projects identified in Section 4.19.2 would involve alterations to non-emergency, non-educational public service facilities located within the API of the SR 60 LRT Alternative, namely the post office near Via Paseo (Montebello) and the Los Angeles County Office of the Assessor. Therefore, no cumulative impacts would occur.

Parks and Recreational Facilities: No new recreational facilities would be constructed as part of the SR 60 LRT Alternative, and no existing facilities would be expanded.

None of the projects identified in Section 4.19.2 would involve alterations to the existing parks and recreational facilities, as discussed in Section 4.15, Parklands and Other Community Facilities, and none of the projects would be located near the proposed SR 60 LRT Alternative. None of the projects would generate substantial additional use of the bike paths along the Rio Hondo and San Gabriel River. As a result, no cumulative impacts to park and recreational facilities would occur.

Air Quality and Health Risk Impact: The SR 60 LRT Alternative would be consistent with the 2012-2035 RTP/SCS because it would improve regional transit by expanding the region's light rail service.

In addition to the SR 60 LRT Alternative, other transit projects identified in the LRTP and in Section 4.19.2 that would be implemented by 2035 would have a net cumulative beneficial effect to regional air quality operational emissions from the reduction in passenger vehicle use expected under the various transit improvements. In addition, as part of the 2012–2035 RTP/SCS, SCAG has identified strategies to relieve congestion, reduce delay and harmful emissions, and improve safety on major truck corridors.

Potential impacts to air quality for the SR 60 LRT Alternative during construction and operation would be less than significant. The SR 60 LRT Alternative would result in less than significant air quality impacts during operation when compared to the No Build Alternative. As a result, operational emissions associated with the SR 60 LRT Alternative would not be cumulatively considerable.

Land Use and Development: Implementation of the SR 60 LRT Alternative would not contribute to cumulative land use impacts within the project area. The SR 60 LRT Alternative would not create any new land uses that could, in combination with any current and reasonably foreseeable related actions, generate conflicts with land uses adjacent to the alignment or result in inconsistency or conflict with local land use plans, policies, or regulations, except

for the Whittier Narrows Dam Basin Master Plan with regards to flood storage capacity. With implementation of mitigation, the SR 60 LRT Alternative would be consistent with the Whittier Narrows Dam Basin Master Plan.

Some land uses would be converted, but not in ways that are inconsistent with current land use plans or incompatible with the surrounding areas. Future developments on these parcels could also integrate with nearby bus routes to encourage transit-supportive land uses, community growth, and increased transit ridership, which are considered beneficial impacts. Therefore, the SR 60 LRT Alternative would not result in a considerable contribution to adverse cumulative land use impacts.

In addition, the new transit service would help offset the impacts associated with commercial and residential developments planned and underway in the vicinity of the SR 60 LRT Alternative, such as the Montebello Hills Specific Plan and the South El Monte two-phased mixed-use project along Peck Road north of SR 60, by providing alternatives to driving to access these sites.

Environmental Justice: The SR 60 LRT Alternative would not result in any cumulatively significant impacts to environmental justice populations. No disproportionate adverse impacts associated with diminished economic vitality and employment opportunities are anticipated.

Economic and Fiscal: The SR 60 LRT Alternative would have long-term benefits for the communities it traverses and would further goals and policies for revitalization and investment within the project area. The project's operation would have beneficial long-term mobility impacts for the communities in terms of travel time cost savings. The loss of tax revenue, although not significant, would likely be offset by increased development near stations and along the LRT alignment. The SR 60 LRT Alternative would not contribute to cumulative economic or fiscal impacts during operation and would be economically beneficial to its surrounding communities. Construction activities associated with other

development projects could contribute to community disruption if they occur at the same time as the SR 60 LRT Alternative. This may result in short-term economic impacts on local businesses, but these would be temporary. Overall, the contribution of the SR 60 LRT Build Alternative to cumulatively significant economic and fiscal impacts would not be cumulatively considerable. Rather, the SR 60 LRT Alternative could result in beneficial contributions.

Maintenance Yard Option: Construction of the Mission Junction Maintenance Yard Option and other projects that may occur simultaneously would require obtaining the necessary construction permits that require incorporation of appropriate avoidance and minimization measures and techniques to reduce adverse short-term cumulative impacts during construction. In the long-term, construction impacts would not be cumulatively considerable.

The Mission Junction Maintenance Yard Option would not result in significant noise and vibration impacts on sensitive areas during operations and would not contribute to cumulative impacts. The Mission Junction Maintenance Yard Option would not result in a considerable contribution to cumulative impacts on traffic, community and neighborhoods, ecosystems and biological resources, visual and aesthetic impacts, cultural resources, safety and security, climate change, parklands and other community facilities, air quality and health risk impacts, land use and development, or environmental justice populations.

With regard to displacements and relocations, the Mission Junction Maintenance Yard Option would require acquisition of property necessitating relocation of several businesses. Metro would be required to follow stipulations of certain federal and state acquisition and relocation programs, policies, and procedures. While this yard option would require relocation of businesses and the associated jobs, it is likely the businesses and jobs could be relocated at other available sites within the region or project area.

4.19.3.3.2 Mitigation Measures

Mitigation measures that would be implemented to avoid, minimize, or mitigate potentially significant impacts are identified within the specific EIS/EIR section for each environmental resource and summarized in Table ES-2.

4.19.3.3.3 Impacts Remaining After Mitigation

NEPA Finding

The SR 60 LRT Alternative would not result in adverse direct or indirect effects related to the following environmental issues: energy resources, climate change, ecosystems/biological resources, cultural resources (historical resources), Section 4(f) protected resources, visual and aesthetic impacts, or environmental justice. Therefore, the SR 60 LRT Alternative would not contribute to any adverse cumulative effects with respect to these environmental resources.

With implementation of project-level mitigation measures, the SR 60 LRT Alternative is not anticipated to contribute to any adverse cumulative effects with respect to the following environmental issues: transit, traffic, circulation, and parking; displacement and relocation; community and neighborhoods; noise and vibration; geotechnical, subsurface, and seismic hazards; hazardous materials; water resources; cultural resources (archaeology); air quality and health risk; land use and development; economic and fiscal; and safety and security.

The SR 60 LRT Alternative would have beneficial cumulative effects on community and neighborhood resources. Proposed projects presented in Section 4.19.2, such as the mixed-use development at Santa Anita Avenue and Merced Avenue on the north side of SR 60 and Plaza del Sol shopping center, at Peck Road, would have access to convenient and reliable transit via the SR 60 LRT Alternative to destinations within the project area and the region. The proposed developments, in conjunction with the SR 60 LRT Alternative, would offer new and enhanced opportunities for new businesses to locate in the area or for existing

businesses to relocate in the area. Transit-dependent populations such as low-income, senior citizens, and disabled persons would benefit from the transit service improvements.

The SR 60 LRT Alternative would have beneficial cumulative effects on economic and fiscal resources. The SR 60 LRT Alternative's operation would have beneficial long-term mobility effects for the communities it traverses in terms of travel time cost savings. The minimal loss of tax revenue would likely be offset by increased development near stations and along the LRT alignment. The SR 60 LRT Alternative would also further goals and policies for revitalization and investment within the project area.

The SR 60 LRT Alternative would have beneficial cumulative effects on parking and noise levels because the LRT alternative would provide an alternative source of transportation to many of the other planned projects as well as to other destinations in the area. This would reduce the number of auto trips, partially offset any loss of parking, and lower the noise levels associated with those foregone auto trips. Therefore, the SR 60 LRT Alternative and maintenance yard option would not result in a considerable contribution to adverse cumulative effects and would provide a beneficial overall effect.

CEQA Determination

The SR 60 LRT Alternative would not contribute to any significant cumulative impacts with respect to the following environmental issues: energy resources, climate change, ecosystems and biological resources, cultural resources (historical resources), parklands and other community facilities, or visual and aesthetic impacts.

With implementation of project-level mitigation measures, the SR 60 LRT Alternative would not contribute to any significant cumulative impacts with respect to the following environmental issues: transit, traffic, circulation, and parking; displacement and relocation; community and neighborhoods; noise and vibration; geotechnical, subsurface, and seismic hazards; hazardous

materials; water resources; cultural resources (archaeological and paleontological resources); air quality and health risk; land use and development; economic and fiscal; or safety and security.

The SR 60 LRT Alternative would have beneficial cumulative impacts on community and neighborhood resources by providing convenient and reliable transit for future planned projects to destinations within the project area and the region. The proposed developments, in conjunction with the LRT, would offer new and enhanced opportunities for new businesses to locate in the area or for existing businesses to relocate in the area.

The SR 60 LRT Alternative would have beneficial cumulative impacts on economic and fiscal resources. The SR 60 LRT Alternative's operation would have beneficial long-term mobility impacts for the communities it traverses in terms of travel time cost savings and would further goals and policies for revitalization and investment within the project area.

The SR 60 LRT Alternative would have beneficial cumulative impacts on parking and noise levels because the LRT alternative would reduce the number of auto trips, partially offset any loss of parking, and lower the noise levels associated with those foregone auto trips. Therefore, the SR 60 LRT Alternative and maintenance yard option would not result in a considerable contribution to adverse cumulative impacts and may provide a beneficial overall impact.

4.19.3.4 Washington Boulevard LRT Alternative

4.19.3.4.1 Impact Analysis

This section discusses the cumulative impacts evaluation of the Washington Boulevard LRT Alternative. Note that there are no differences in the cumulative impacts regardless of whether the aerial or at-grade crossing options at Rosemead Boulevard and the San Gabriel River/I-605 are implemented. This is because the features of the crossing at-grade or aerial structure that resulted in the findings for each category of impact evaluated for each crossing

location are the same regardless of whether the crossing is at-grade or on an elevated structure.

Transit, Traffic, Circulation, and Parking:

Construction impacts would be temporary and intermittent during the overall construction period for the Washington Boulevard LRT Alternative. As continued development is planned throughout the project area, individual development projects may occur simultaneously adjacent to the project alignment. This may result in a short-term cumulatively considerable adverse effect during construction. The Washington Boulevard LRT Alternative includes measures to minimize the anticipated adverse effects during construction, which would reduce the project's contribution to cumulative construction effects.

The Washington Boulevard LRT Alternative would expand regional transportation choices and is aimed at improving overall regional mobility. As such, the Washington Boulevard LRT Alternative would result in decreases in VMT and travel time due to the increased use of transit. The Washington Boulevard LRT Alternative would therefore result in a beneficial cumulative effect on area-wide traffic conditions. In addition, the Washington Boulevard LRT Alternative would not have an adverse effect to local transit operations and circulation as there would be minimal impacts to individual bus lines or stops.

However, the Washington Boulevard LRT Alternative would result in substantial adverse effects to traffic operations due to the concentration of vehicles traveling to and from the proposed park and ride and drop-off/pick-up facilities. In addition, the required modifications to the roadway network to accommodate the LRT (such as the elimination of travel lanes) would lead to additional future circulation effects with the Washington Boulevard LRT Alternative. In conjunction with the growth in vehicles from new development throughout the project area, this would result in cumulatively considerable adverse effects to intersection operations. The Washington Boulevard LRT Alternative includes measures to minimize the anticipated adverse effects on intersections, which

would also reduce the project's contribution to cumulative effects, but the adverse effect cannot be fully mitigated; therefore, the project's contribution would be cumulatively considerable.

At the proposed station locations with areas of limited on-street and off-street parking availability, the Washington Boulevard LRT Alternative would result in a substantial adverse effect if the on-site parking supply does not meet the demands of the transit users and land uses generating parking demand. However, transit use reduces reliance on automobiles and generally reduces demand for parking on a regional basis. Given that development around the stations is likely to be transit oriented, the proposed project may contribute to some cumulative effects on parking. However, the Washington Boulevard LRT Alternative includes measures to minimize the anticipated adverse effects on parking, which would reduce the project's contribution to cumulative effects.

Operation of the increased transit service associated with the Washington Boulevard LRT Alternative would add pedestrians and bicyclists to the current facilities in the areas surrounding stops and stations. Although there would also be an increase in pedestrian and bicycle activity in the vicinity of individual development projects, the cumulative result of these new users would not cause an adverse effect to pedestrian or bicycle conditions. However, the Washington Boulevard LRT Alternative would have substantial adverse effects adjacent to the proposed stations if adequate pedestrian facilities (such as crosswalks and pedestrian push buttons at crossings) are not provided. In combination with increases in pedestrians due to individual development projects, this would result in a cumulatively considerable adverse effect to pedestrian conditions. However, the Washington Boulevard LRT Alternative includes measures to minimize the anticipated adverse effects to pedestrians, which would also reduce the project's contribution to cumulative effects.

Displacement and Relocation: A project may have cumulatively considerable impacts associated with

displacement, even when mitigated, if it would contribute cumulatively to displacement of the same land uses or important resources. It is anticipated that loss of jobs and business activity due to displacement associated with the Washington Boulevard LRT Alternative would be retained with relocation in the project area or region. Thus, adverse cumulative impacts due to job loss and business activity would not be significant. To the extent that similar high-capacity transit projects tend to spur additional economic development, the project could have a beneficial cumulative impact on creation of new businesses and jobs in the project area.

Overall, because displacement of property is site-specific in nature it is not expected to contribute cumulatively to other property acquisition in the project area. Therefore, no adverse cumulative impacts associated with displacement and relocation is anticipated.

It is estimated that approximately 1,794 parking spaces would be displaced as a result of construction of the Washington Boulevard LRT Alternative. Of these, approximately 935 parking spaces would require consideration of mitigation measures for replacement parking to help offset the loss. The remaining estimated 859 displaced parking spaces are subject to full property acquisition. The parking loss associated with the full property acquisitions would not require replacement because it serves the acquired business locations and does not substantially serve a broader parking demand or customer base.

Where permanent parking displacement would occur that serves multiple businesses, parking would be replaced by Metro through a combination of a reconfigured site, optimization of parking at nearby lots, shared parking arrangement with new Metro facilities, and partial offset of parking demand by the increased public transit access provided by the proposed project.

It is anticipated that new developments expected by 2035, representing mostly residential and commercial uses, could provide the required parking

for their occupants. The stock of publicly accessible parking would not be greatly reduced. The removal of parking is not anticipated to affect the local community or business operations.

Overall, the loss of publicly accessible surface parking due to the proposed project in conjunction with other planned developments would not represent a cumulative loss.

Typically, transit projects themselves serve as mitigation for the loss of parking because they would remove vehicles from the road, thereby reducing the demand for parking. The Eastside Transit Corridor Phase 2 Project would provide new non-auto access to the region and its activity centers. Therefore, the proposed Washington Boulevard LRT Alternative would partially offset potential adverse impacts due to loss of parking. Some cumulative impacts due to parking loss would remain but they would not be significant.

Community and Neighborhoods: The cumulative impacts discussion for community and neighborhoods focuses on CDPs where the Washington Boulevard LRT Alternative alignment would be constructed. The Washington Boulevard LRT Alternative alignment would pass through the following cities and CDPs: East Los Angeles, Montebello, Commerce, Pico Rivera, West Whittier/Los Nietos, Santa Fe Springs, and Whittier.

Given the proposed park and ride lots and connecting bus service at many of the stations, other surrounding communities and neighborhoods may benefit from the Washington Boulevard LRT Alternative.

Social and Physical Character: Should any of the construction projects along the Washington Boulevard LRT Alternative alignment identified in Section 4.19.2 occur at the same time as the Eastside Transit Corridor Phase 2 construction, impacts would be cumulatively significant. Noise and temporary visual changes to surrounding neighborhoods could be exacerbated. Metro would coordinate with other construction projects to

minimize impacts where possible. After mitigation, these cumulative impacts would be less than significant.

Crime and Public Health/Safety/Services: LRT stations and facilities can be perceived as potential safety hazards and attractive locations for illegal activities. However, Metro would provide security services at all LRT facilities as needed to prevent an increase in criminal activity. All LRT facilities and crossings would be designed to ensure safety and minimize potential hazards. The stations themselves would become centers of pedestrian activity during train operation, and this may create a beneficial public presence in the surrounding community that would dissuade criminal activity. After mitigation, no adverse impacts regarding crime, public health, safety, or public services would remain. No contribution to cumulative impacts would occur.

Community Resources and Events: Some construction projects in the vicinity of the Washington Boulevard LRT Alternative would require additional road closures in the vicinity of community events and resources if they occur at the same time as the LRT construction. This would lengthen traffic and pedestrian detours and cause additional delay. Metro would coordinate with simultaneous construction projects in the area to minimize detours and accommodate access to community events. After mitigation, no significant adverse impacts would remain and no contribution to cumulative impacts would occur.

Minority, Low-Income, Senior Citizen, and Disabled Persons: Minority, low-income, senior citizen, and disabled persons, who tend to be more dependent on transit service for mobility than other segments of the population, would likely benefit from the transit service improvements the Washington Boulevard LRT Alternative would provide. All LRT stations and trains would be compliant with the Americans with Disabilities Act to ensure accessibility to all passengers. No adverse impacts to minority, low-income, senior citizen, or disabled persons are expected, and therefore no contribution

to adverse cumulative impacts on these populations would occur.

Viability of Local Businesses: Other construction projects that would require street closures in the vicinity of the Washington Boulevard LRT Alternative would compound construction effects if they occur simultaneously. This would temporarily heighten the inconvenience of accessing nearby businesses. Metro would coordinate with other construction projects in the area to minimize street closures and maintain access to businesses. After mitigation, cumulative impacts would be less than significant.

The proposed developments, in conjunction with the LRT, would offer new and enhanced opportunities for new businesses to locate in the area or for existing businesses to relocate here. This potential cumulative impact would be beneficial.

Mobility: Other construction projects that would require street closures in the vicinity of the Washington Boulevard LRT Alternative would temporarily reduce mobility further if they occur during the LRT construction phase. Metro would coordinate with other construction projects in the area to minimize street and sidewalk closures. After mitigation, cumulative impacts would be less than significant.

Population and Employment: Since little net population or employment changes would occur, the project would not result in a considerable contribution to cumulative population or employment changes.

Physical Division: Some of the other construction projects proposed in the vicinity of the Washington Boulevard LRT Alternative could also require temporary street closures. This would compound the temporary dividing effect of the closures needed for the Washington Boulevard LRT Alternative construction if they occur simultaneously. Metro would coordinate with other ongoing construction projects to ensure that any cumulative physical division impacts are minimized. After mitigation, significant cumulative impacts would be reduced to less than significant.

Noise and Vibration: Noise levels along the route would be somewhat increased by the presence of the Washington Boulevard LRT Alternative, since it would involve operating transit vehicles. Some of the other planned projects in the area would also increase noise because they would result in increased travel, which would result in significant cumulative noise impacts. With implementation of all the noise and vibration mitigation measures identified for the Washington Boulevard LRT Alternative, all project-related noise and vibration impacts would be reduced to a level that is less than significant. Since the Washington Boulevard LRT Alternative would provide an alternative source of transportation for many of the other planned projects as well as to other destinations in the area, it would reduce the number of auto trips and the noise levels associated with those foregone auto trips. Therefore, the Washington Boulevard LRT Alternative would not contribute to cumulative impacts and may provide a beneficial overall effect.

Ecosystems and Biological Resources: Construction activities associated with future projects have the potential to affect biological resources, including sensitive habitats, migratory birds, locally protected trees, and wildlife corridors. Other ongoing and future construction projects would be required to implement mitigation measures to address any potential impacts to biological resources. With implementation of all ecosystems and biological resource mitigation measures, and given that the Washington Boulevard LRT corridor would occur in a mostly urban area, the Washington Boulevard LRT Alternative would not contribute to a cumulative impact with respect to biological resources.

Visual and Aesthetic Impacts: Construction of the Washington Boulevard LRT Alternative would result in less than significant impacts to visual quality and character along both Garfield Avenue and Washington Boulevard.

Other planned and/or proposed development projects throughout the project area have gone

through or are going through the planning process. These future development projects would be subject to independent environmental review and mitigation in accordance with state and federal laws. Given the transportation infrastructure-related nature of these projects proposed within an existing transportation corridor, adverse effects on visual quality and character from these proposed and reasonably foreseeable projects would not be expected. Additionally, none of these projects are expected to be in construction simultaneously with the Washington Boulevard LRT Alternative. Therefore, in combination with other planned and approved projects in the area, construction of the Washington Boulevard LRT Alternative would not contribute to a cumulatively significant impact on visual quality or character.

The Washington Boulevard LRT Alternative would not result in direct or indirect nighttime illumination impacts during construction, nor would the alternative result in significant shade and shadow impacts. Reasonably foreseeable future development would also not have the potential to combine with the construction of the Washington Boulevard LRT Alternative to create new lighting or shadows on sensitive uses. Therefore, significant cumulative impacts during construction with respect to nighttime illumination or shade and shadows would not occur.

Visual impacts associated with the operation of the Washington Boulevard LRT Alternative would be cumulatively considerable if combined with potentially similar impacts of existing, planned, and reasonably foreseeable development in the API.

Furthermore, foreseeable development would likely result in possible densification of land uses throughout the project corridor. These areas may develop with taller buildings that would change the visual surroundings near the stations. Proposed and other reasonably foreseeable future projects would include measures to substantially reduce or avoid adverse visual impacts. Operation of the Washington Boulevard LRT Alternative would result in significant shade and shadow impacts within

Segment 2 (Garfield Avenue to UPRR) due to the presence of the LRT aerial structure along this visually-sensitive segment which contains many residences and a church. Operation of the Washington Boulevard LRT Alternative in combination with other planned and/or reasonably foreseeable future projects would result in significant visual alteration of the project corridor such that cumulatively significant visual impacts would occur.

Geotechnical, Subsurface, and Seismic Hazards:

A number of development projects are currently under construction, in the planning stages, or proposed within the vicinity of or adjacent to the Washington Boulevard LRT Alternative alignment, as discussed in Section 4.19.2. Some of those projects could involve ground-disturbing construction where there is potential to encounter hazardous materials in soil and/or groundwater. In addition, other construction activities in the project area may entail building demolition, with the potential for release of asbestos fibers from ACM and lead particles from LBP. Such projects have the potential to result in impacts related to geotechnical, subsurface, and seismic hazards during construction and/or operation.

Operation of the Washington Boulevard LRT Alternative would result in adverse effects from liquefaction and seismically-induced settlement. As such, construction and operation of the Washington Boulevard LRT Alternative would contribute to cumulative impacts associated with geotechnical, subsurface, and seismic hazards if other related projects in the area result in impacts related to geotechnical, subsurface, and seismic hazards; however, mitigation identified in Section 4.11, Geotechnical/Subsurface/Seismic/Hazardous Materials, would reduce potential impacts associated with geotechnical, subsurface, and seismic hazards for this alternative to less than significant. In addition, future development projects would be subject to independent environmental review and mitigation in accordance with state and federal laws to address any potential impacts related to geotechnical, subsurface, and seismic hazards.

Therefore, the Washington Boulevard LRT Alternative's incremental contribution to the cumulative effect would not be cumulatively considerable.

Hazardous Materials: Construction of some of the related projects listed in Section 4.19.2 could result in hazardous impacts due to hazardous materials in soil and/or groundwater and the possible release of asbestos fibers from ACM or lead particles from LBP associated with building demolition. The additive effect of construction activities would result in cumulative impacts to human health or the environment through release of hazardous materials. Construction of the Washington Boulevard LRT Alternative would contribute to cumulative impacts associated with hazardous materials; however, mitigation identified in Section 4.11, Geotechnical/Subsurface/Seismic/Hazardous Material, would reduce potential impacts to hazardous materials for this alternative to a level less than significant. In addition, future development projects would be subject to independent environmental review and mitigation in accordance with state and federal laws to address any potential hazardous impacts. Therefore, the Washington Boulevard LRT Alternative's contribution to the cumulative impacts would not be cumulatively considerable.

Water Resources: Development of the Washington Boulevard LRT Alternative in combination with related renovation, new construction, and transportation projects identified in the vicinity or adjacent to the project area would result in cumulative impacts to water resources and hydrology.

Compliance with required SWRCB permits, in addition to LACDPW approvals and potential mitigation for potential impacts at the spreading grounds and implementation of mitigation measures listed in Section 4.12, Water Resources, which includes the provision of compensatory mitigation of the potential loss of flood storage, would reduce all potential impacts to less than significant. All of the projects considered for

cumulative impacts would also be required to comply with applicable permits. It is not anticipated that any of the reasonably foreseeable related projects would have significant impacts on hydrology or water resources in the project area. Therefore, construction and operation of the Washington Boulevard LRT Alternative would not result in a considerable contribution to potential cumulative impacts to hydrology or water resources in the project area.

Cultural Resources: The Washington Boulevard LRT Alternative is not anticipated to result in an adverse cumulative effect on any historic property per NHPA Section 106 unless a significant discovery of an unknown archaeological resource is made at the Site of the Battle of Rio San Gabriel. The effects of discovery of unknown archaeological resources at this location or other possible locations within the APE of the Washington Boulevard LRT Alternative are further discussed below. With regard to CEQA, the demolition of the state-listed Chinese Garden Restaurant associated with the Washington Boulevard LRT Alternative, in combination with the other development projects, would result in a significant impact on historical resources. With incorporation of mitigation measures presented in Section 4.14, Cultural Resources, the Washington Boulevard LRT Alternative would not result in a considerable contribution to cumulative impacts on historical resources.

Since significant buried cultural or paleontological resources may exist within the project area, and it is possible these materials could be unearthed during project excavation activities, construction of the Washington Boulevard LRT Alternative could have the potential to disturb and destroy a significant archaeological resource or paleontological resource. If unmitigated, this disturbance of significant archaeological and paleontological resources in combination with other development projects would result in significant cumulative impacts.

However, with the incorporation of mitigation measures presented in Section 4.14, Cultural Resources, the Washington Boulevard LRT

Alternative's contribution to archaeological and paleontological cultural resource impacts, if any are found during construction, would not be considerable.

Safety and Security: Related projects in the vicinity of or adjacent to the Washington Boulevard LRT Alternative alignment have the potential to result in safety and/or security impacts during construction and/or operation. The Washington Boulevard LRT Alternative would contribute to cumulative impacts to safety and security during construction and operation. However, mitigation proposed in Section 4.16, Safety and Security, would reduce potential impacts to safety and security for this alternative to less than significant, which would reduce the Washington Boulevard LRT Alternative's contribution to cumulative safety and security effects to less than cumulatively considerable.

Energy Resources: Construction of the Washington Boulevard LRT Alternative would result in less than significant impacts to energy resources. The proposed project, as well as renovation, new construction, and transportation projects in the vicinity of the proposed project, would be consistent with federal, state, and local regulations to conserve and reduce energy usage. Construction would require energy from both transportation fuels and the electricity suppliers, SCE and LADWP.

SCE and LADWP are working to develop new renewable energy and energy efficient resources. The Washington Boulevard LRT Alternative, and other potential projects in the area, would be consistent with applicable energy efficiency guidance set by SCE and LADWP. Potential cumulative impacts related to construction would be less than significant.

Both SCE and LADWP predict increases in electricity demand over the next decade and have increased their ability to serve the area by adding new facilities and increasing and diversifying its energy supplies. Operation of the Washington Boulevard LRT Alternative would not result in a considerable contribution to cumulative impacts on energy.

Climate Change: The Washington Boulevard LRT Alternative would be consistent with the 2012 RTP/SCS because it would improve regional transit by expanding the region's light rail service. In addition to the Washington Boulevard LRT Alternative, other transit projects identified in the LRTP and in Section 4.19.2 would have an overall beneficial effect on operational emissions from the reduction in passenger vehicle use expected under the various transit improvements.

The Washington Boulevard LRT Alternative would result in a net decrease in GHG emissions compared to the No Build Alternative and to existing conditions (2010). As such, the Washington Boulevard LRT Alternative would not contribute to cumulative impacts to air quality because emissions would be less than significant. The Washington Boulevard LRT Alternative would also be consistent with the requirements of CARB's Scoping Plan and SB 375 because it would meet California's goal to increase mass transit. Therefore, under CEQA, GHG emissions associated with the Washington Boulevard LRT Alternative would not be cumulatively considerable.

Parklands and Other Community Facilities:

Public Schools: None of the proposed developments identified in Section 4.19.2 would likely physically alter or disrupt the schools discussed in Section 4.15, Parklands and Other Community Facilities. Therefore, the Washington Boulevard LRT Alternative would not contribute to any potentially significant cumulative impacts on schools.

Emergency Services: None of the projects identified in Section 4.19.2 would involve alterations to nearby emergency facilities located within the API for the Washington Boulevard LRT Alternative. Therefore, no cumulative impacts would occur. Light rail can encourage, but does not cause, growth to occur; therefore, no induced growth that could affect emergency service levels would occur.

Other Public Services: None of the projects identified in Section 4.19.2 would involve alterations to non-emergency, non-educational public service facilities located within the API of the

Washington Boulevard LRT Alternative, which include the South Montebello Irrigation District Office and the Pico Rivera Department of Parks and Recreation office. Therefore, no cumulative impacts would occur.

Parks and Recreational Facilities: No new recreational facilities would be constructed as part of the Washington Boulevard LRT Alternative, and no existing facilities would be expanded.

None of the projects identified in Section 4.19.2 would involve alterations to the existing parks and recreational facilities, as discussed in Section 4.15, Parklands and Other Community Facilities, and none of the projects would be located near the proposed Washington Boulevard LRT Alternative. Therefore, no significant cumulative impacts would occur.

Air Quality and Health Risk Impact: The Washington Boulevard LRT Alternative would be consistent with the 2012-2035 RTP/SCS because it would improve regional transit by expanding the region's light rail service.

In addition to the Washington Boulevard LRT Alternative, other transit projects identified in the L RTP and in Section 4.19.2 that would be implemented by 2035 would have a net cumulative beneficial effect to regional air quality operational emissions from the reduction in passenger vehicle use expected under the various transit improvements. In addition, as part of the 2012–2035 RTP/SCS, SCAG has identified strategies to relieve congestion, reduce delay and harmful emissions, and improve safety on major truck corridors.

Potential impacts to air quality for the Washington Boulevard LRT Alternative during construction and operation would be less than significant. The Washington Boulevard LRT Alternative would result in less than significant air quality impacts during operation when compared to the No Build Alternative. As a result, operational emissions associated with the Washington Boulevard LRT Alternative would not be cumulatively considerable.

Land Use and Development: Implementation of the Washington Boulevard LRT Alternative would not contribute to cumulative land use impacts within the project area. The Washington Boulevard LRT Alternative would not create any new land uses that could, in combination with any current and reasonably foreseeable related actions, generate conflicts with land uses adjacent to the alignment, or result in inconsistency or conflict with local land use plans, policies, or regulations.

Some land uses would be converted, but not in ways that are inconsistent with current land use plans or incompatible with the surrounding areas. Future developments on these parcels could also integrate with nearby bus routes to encourage transit-supportive land uses, transit oriented development, community growth, and increased transit ridership, which are considered beneficial impacts. Therefore, the Washington Boulevard LRT Alternative would not result in a considerable contribution to adverse cumulative land use impacts.

Commercial and residential developments planned and underway in the vicinity of the Washington Boulevard LRT Alternative include the Presbyterian Intercommunity Hospital Expansion, Fred C. Nelles California Youth Authority Site, and the Whittier Commercial Corridor Redevelopment Plan. In addition, the new transit service would help offset the impacts associated with the commercial and residential developments planned and underway in the vicinity of the Washington Boulevard LRT Alternative.

Environmental Justice: Because effects associated with the Washington Boulevard LRT Alternative would affect both environmental justice and non-environmental justice communities, and in view of the considerable project benefits and local support for implementing the Washington Boulevard LRT Alternative, the adverse effects associated with this alternative would not be disproportionate to the mobility, regional connectivity, equity, and economic gains that this alternative could offer. The Washington Boulevard LRT Alternative would not result in any cumulatively significant impacts to

environmental justice populations. No disproportionate adverse impacts associated with diminished economic vitality and employment opportunities are anticipated.

Economic and Fiscal: The Washington Boulevard LRT Alternative would have long-term benefits for the communities it traverses and would further goals and policies for revitalization and investment within the project area. The project's operation would have long-term mobility impacts for the communities in terms of travel time and cost savings. The loss of tax revenue, although not significant, would likely be offset by increased development near stations and along the LRT alignment. The adverse impacts from the Washington Boulevard LRT Alternative would not result in a considerable contribution to cumulative economic or fiscal impacts during operation and would be economically beneficial to its surrounding communities. Construction activities could contribute to community disruption, particularly if other development projects occur at the same time as the Washington Boulevard LRT Alternative. This may result in short-term economic impacts on local businesses, but these would be temporary. Overall, the contribution of the Washington Boulevard LRT Alternative to cumulatively significant economic and fiscal impacts would not be cumulatively considerable. Rather, the Washington Boulevard LRT Alternative could result in beneficial contributions.

Maintenance Yard Options: Construction of any of the three maintenance yard options and other projects that may occur simultaneously would require obtaining the necessary construction permits that necessitate the incorporation of appropriate avoidance and minimization measures and techniques to reduce adverse short-term cumulative impacts during construction. In the long term, construction impacts would not be cumulatively considerable.

Significant noise and vibration impacts on sensitive areas during operations would not occur at the yard sites, and the yard options would not contribute to

cumulative impacts. None of the yard options would have a considerable contribution to cumulative impacts on community and neighborhoods, ecosystems and biological resources, visual and aesthetic impacts, cultural resources, safety and security, climate change, parklands and other community facilities, air quality and health risk impacts, land use and development, and environmental justice populations.

With regard to displacements and relocations, the Commerce Maintenance Yard Option would require acquisition of property owned by the UPRR. However, no residences or businesses would be displaced as a result of this option. Both the Mission Junction Maintenance Yard Option and the Santa Fe Springs Maintenance Yard Option would require acquisition of property necessitating relocation of several businesses. Metro would be required to follow the stipulations of certain federal and state acquisition and relocation programs, policies, and procedures. While both options would require relocation of businesses and the jobs associated with them, it is likely the businesses and jobs could be relocated to other available sites within the region or project area.

Neither the Mission Junction nor Commerce Maintenance Yard Options would have an adverse effect on traffic during operations. The Santa Fe Springs Maintenance Yard Option would have an adverse impact on intersection operations. However, mitigation measures are available to reduce the impact. Therefore, none of the yard options would result in a considerable contribution to cumulative traffic impacts.

4.19.3.4.2 Mitigation Measures

Mitigation measures that would be implemented to avoid, minimize, or mitigate potentially significant impacts are identified within the specific EIS/EIR section for each environmental resource and summarized in Table ES-2.

4.19.3.4.3 Impacts Remaining After Mitigation

NEPA Finding

The Washington Boulevard LRT Alternative would not result in adverse direct or indirect effects related to the following environmental issues: parking; energy resources; ecosystems/biological resources; Section 4(f) protected resources; or land use and development. Therefore, the Washington Boulevard LRT Alternative would not contribute to any adverse cumulative effects with respect to these environmental resources.

With implementation of project-level mitigation measures, the Washington Boulevard LRT Alternative is not anticipated to contribute to any adverse cumulative effects with respect to the following environmental issues: transit, traffic (with the exception of effects on several intersections), and circulation; displacement and relocation; community and neighborhoods; noise and vibration; geotechnical, subsurface, and seismic hazards; hazardous materials; water resources; cultural resources (historic and archaeological resources); air quality and health risk; environmental justice; economic and fiscal; and safety and security.

Even with implementation of mitigation measures, operation of the Washington Boulevard LRT Alternative would still result in a considerable contribution to adverse cumulative visual and aesthetic effects along Segment 2, Garfield Avenue to the UPRR, due to the elevated structure that would be built along Garfield Avenue in the surrounding neighborhood.

Even with implementation of mitigation measures, operation of the Washington Boulevard LRT Alternative would still result in a considerable contribution to adverse cumulative effects on intersection operations.

The Washington Boulevard LRT Alternative would have beneficial cumulative effects on community and neighborhood resources. Proposed projects identified in Section 4.19.2, such as the Fred C. Nelles Redevelopment site in Whittier,

would have access to convenient and reliable transit via the Washington Boulevard LRT Alternative to destinations within the project area and the region. The proposed developments, in conjunction with the LRT, would offer new and enhanced opportunities for new businesses to locate in the area or for relocation of existing businesses. Transit-dependent populations such as low-income, senior citizens, and disabled persons would benefit from the transit service improvements.

The Washington Boulevard LRT Alternative would have beneficial cumulative effects on economic and fiscal resources. The Washington Boulevard LRT Alternative's operation would have beneficial long-term mobility effects for the communities it traverses in terms of travel time cost savings. The minimal loss of tax revenue would likely be offset by increased development near stations and along the LRT alignment. The Washington Boulevard LRT Alternative would also further goals and policies for revitalization and investment within the project area.

The Washington Boulevard LRT Alternative would have beneficial cumulative effects on parking and noise levels because the LRT alternative would provide an alternative source of transportation to many of the other planned projects as well as to other destinations in the area. This would reduce the number of auto trips, partially offset any loss of parking, and lower the noise levels associated with those foregone auto trips. Therefore, with the exception of adverse cumulative visual/aesthetics effects along Segment 2 and adverse cumulative effects on several traffic intersections, the Washington Boulevard LRT Alternative and maintenance yard options would not result in a considerable contribution to adverse cumulative effects and would provide a beneficial overall effect.

CEQA Determination

The Washington Boulevard LRT Alternative would not contribute to any significant cumulative impacts with respect to the following environmental issues: parking; energy resources; ecosystems/biological resources; parklands and other community facilities; or land use and development.

With implementation of project-level mitigation measures, the Washington Boulevard LRT Alternative would not contribute to any significant cumulative impacts with respect to the following environmental issues: transit, traffic (with the exception of impacts on several intersections), and circulation; displacement and relocation; community and neighborhoods; noise and vibration; geotechnical, subsurface, and seismic hazards; hazardous materials; water resources; cultural resources (historical, archaeological, and paleontological resources); air quality and health risk; economic and fiscal; or safety and security.

Even with implementation of mitigation measures, operation of the Washington Boulevard LRT Alternative would still result in a considerable contribution to significant cumulative visual and aesthetic impacts along Segment 2, Garfield Avenue to the UPRR, due to the elevated structure that would be built along Garfield Avenue in the neighborhood.

Even with implementation of mitigation measures, operation of the Washington Boulevard LRT Alternative would still result in a considerable contribution to significant cumulative impacts on intersection operations.

The Washington Boulevard LRT Alternative would have beneficial cumulative impacts on community and neighborhood resources by providing convenient and reliable transit for future planned projects to destinations within the project area and the region.

The proposed developments, in conjunction with the LRT, would offer new and enhanced opportunities for new businesses to locate in the area or for relocation of existing businesses. Transit-dependent populations such as low-income, senior citizens, and disabled persons would benefit from the transit service improvements.

The Washington Boulevard LRT Alternative would have beneficial cumulative impacts on economic and fiscal resources.

The Washington Boulevard LRT Alternative's operation would have beneficial long-term mobility effects for the communities it traverses in terms of travel time cost savings, and would further goals and policies for revitalization and investment within the project area.

The Washington Boulevard LRT Alternative would have beneficial cumulative impacts on parking and noise levels because the LRT alternative would reduce the number of auto trips, partially offset any loss of parking, and lower the noise levels associated with those foregone auto trips.

Therefore, the Washington Boulevard LRT Alternative and maintenance yard options would not result in a considerable contribution to significant cumulative impacts, with the exception of cumulatively considerable visual impacts along Segment 2 and cumulatively considerable impacts on several traffic intersections. Overall the cumulative impacts of the Washington Boulevard LRT Alternative would be beneficial.

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