

**Add One High Occupancy Vehicle Lane in Each Direction on  
the San Bernardino Freeway (Interstate 10) from  
Puente Avenue to State Routes 57/71  
in Los Angeles County**

**07-LA-10**

**PM 33.2/42.4**

# **Draft Environmental Impact Report**



**Prepared by the  
State of California Department of Transportation**

**and**

**Los Angeles County Metropolitan Transportation Authority**



**November 2011**



**Add One High Occupancy Vehicle Lane in Each Direction  
on the San Bernardino Freeway (Interstate 10) from Puente Avenue  
to State Routes 57/71 in Los Angeles County**

**07-LA-10**

**PM 33.2/42.4**

**DRAFT ENVIRONMENTAL IMPACT REPORT**

Submitted Pursuant to: (State) Division 13, California Public Resources Code

**State of California  
Department of Transportation**

and

**Los Angeles County Metropolitan Transportation Authority**

*Nov 14, 2011*  
Date

  
Ronald J. Kosinski  
Deputy District Director  
Division of Environmental Planning  
District 7  
California Department of Transportation

The following person may be contacted for additional information concerning this document:

Gary Iverson  
Senior Environmental Planner, Division of Environmental Planning  
California Department of Transportation  
100 S. Main Street  
Los Angeles, CA 90012  
Gary.iverson@dot.ca.gov



# **SUMMARY**



## Summary

This documentation for the ‘Add One High Occupancy Vehicle (HOV) Lane in Each Direction on the San Bernardino Freeway (Interstate 10) from Puente Avenue to State Routes 57/71 in Los Angeles County’ Project (henceforth referred to as the ‘I-10 HOV Lane Project’ or ‘proposed project’) has been prepared in compliance with the California Environmental Quality Act (CEQA). For the proposed project, the California Department of Transportation (Caltrans) is the project proponent and lead agency under CEQA.

Following receipt of public comments on the Draft Environmental Impact Report (EIR) and circulation of the Final EIR, Caltrans will be required to take actions regarding the environmental document. Caltrans will determine whether to certify the EIR and issue Findings and a Statement of Overriding Considerations under CEQA.

### S.1 Overview of the Project Area

The proposed I-10 HOV Lane Project corridor extends just over 9 miles from the Puente Avenue interchange in Baldwin Park east to the SR 57/SR 71 interchange in Pomona. The communities along this section of I-10 were largely developed along with the freeway in the 1950s. The project corridor can be characterized as urban, with the mostly unincorporated, hilly east end less densely developed than incorporated land to the west of Grand Avenue in the City of West Covina. Major land uses within the project corridor are commercial, residential, cemetery, and public (i.e., Cal Poly Pomona).

I-10 currently operates as a four-lane freeway in each direction from the Puente Avenue interchange east to the Citrus Avenue interchange, with auxiliary lanes typically between on- and off-ramps. Going eastbound from Citrus Avenue to the SR 57/SR 71 interchange, the facility operates as a four-lane freeway with one auxiliary lane. In the westbound direction, I-10 operates in a similar fashion to the eastbound direction, with the exception of an additional fifth mixed-flow lane from Via Verde Street to Kellogg Drive.

### S.2 Purpose and Objectives

**Purpose.** The major purpose of the proposed project is threefold, as follows: (1) improve mobility for persons traveling within the corridor by increasing the person-carrying capacity of I-10; (2) increase continuity and decrease travel time by closing a gap in the HOV system; and (3) implement corridor improvements that are consistent with goals of both the Southern California Association of Governments’ 2008 Regional Transportation Plan and the South Coast Air Quality Management District’s 2007 Air Quality Management Plan. The proposed project would also provide incentive and opportunity for individual drivers to switch from single-occupancy vehicles to carpooling or transit.

**Objectives.** Operationally, I-10 has historically experienced, and will continue to experience, serious traffic congestion. Peak-period traffic demand on I-10 currently exceeds capacity and, as a result of existing and forecasted growth, is expected to continue to exceed capacity.

In addition, there is an existing lack of connectivity between HOV lanes in the proposed project area. Even with completion of the 2.2-mile-long project currently under construction to extend the HOV lanes east to Puente Avenue, a nine-mile gap will remain between HOV lane termini. This gap adversely affects person carrying capacity on I-10 as well as regional connectivity with the HOV system.

Most of the recorded accidents for this segment of I-10 have been sideswipes, rear-ends, and broadsides. These types of accidents are usually associated with end-of-queue or stop-and-go conditions, which are typical on this segment of I-10.

### **S.3 Description of Proposed Project**

The proposed project is located along I-10 in Los Angeles County, California between Puente Avenue in the city of Baldwin Park and the State Route 57 (SR 57)/State Route 71 (SR 71) interchange in the city of Pomona. The subject freeway corridor also traverses the jurisdictions of West Covina, Covina, San Dimas, and Los Angeles County (unincorporated).

The proposed project location would entail the addition of one HOV lane in the center freeway median along 18 lane-miles (9 in each direction) of I-10 from PM 33.2 to PM 42.4. To accommodate HOV lanes, center median reconstruction, freeway widening, and striping and signage improvements would be necessary. Additional work for the complete project footprint includes modification of adjoining freeway ramps, realignment of frontage roads, and construction of soundwalls, and retaining walls where required.

The proposed project would consist of constructing one median HOV lane in each direction. Where auxiliary lanes exist, a typical 91-foot-wide cross section would be used for in each direction. Where there are no existing or proposed auxiliary lanes, the half-cross section freeway width would be 79 feet. East of Holt Avenue where there are five general purpose lanes, a 93-foot-wide typical half-cross section would be necessary. Work would include widening the existing freeway on the outside of the existing traffic lanes, with restriping to accommodate the HOV lanes in the median. This alternative would incorporate a nonstandard HOV lane that is 12 feet wide with an 8- to 10-foot-wide shoulder.

The proposed 'Build Nonstandard HOV Lane Alternative' has been identified as the 'preferred alternative' for subsequent design and construction. This alternative would fulfill the project's purpose and objectives; other alternatives (No Project, Additional Mixed-Flow Lane; and Traffic System Management [TSM] Alternatives) as discussed below would not. This alternative would also result in substantially less significant impacts at considerably lower construction cost than either the Standard HOV Lane Alternative or the Elevated Facility Alternative.

### **S.4 Alternatives**

**Alternatives to the Proposed Project.** Alternatives considered in both current and past environmental documents for the proposed project are the following: Standard HOV Lanes

Alternative; Additional Mixed-Flow Lanes Alternative; Elevated Facility Alternative; and TSM Alternative.

*Standard HOV Lane Alternative.* This alternative would also provide construction of an HOV lane in each direction; however, it includes standard lane and median widths. Such a cross section would involve typical mainline widening of approximately 23 feet in each direction, resulting in the acquisition of many residential and business properties. When compared to the Nonstandard HOV Lane Alternative, the Standard HOV Lane Alternative would provide only nominal operational benefits and safety improvements at substantially higher cost, and result in more significant right-of-way (ROW), utility, and construction impacts.

*Additional Mixed-Flow Lane Alternative.* This alternative would add one mixed-flow lane in each direction instead of an HOV lane. First, this alternative would not be consistent with the Regional Transportation Plan (RTP) and the ultimate configuration of I-10 as defined in the Project Reports as two HOV plus eight mixed-flow lanes. Second, it would not achieve the project purpose to increase the person-carrying capacity and promote ride sharing. Finally, any such alternative would not allow a logical extension to close the aforementioned HOV lane gap on I-10.

*Elevated Facility Alternative.* This alternative would utilize the existing median to construct a viaduct over the existing freeway. While this alternative would achieve the project purpose to increase the person-carrying capacity and promote ride sharing on I-10, while also providing a logical extension to close the existing HOV lane gap, this alternative would not be consistent with the RTP and the ultimate configuration of I-10 as defined in the Project Reports. This alternative would also involve substantially greater ROW and construction costs and impacts.

*TSM Alternative.* The proposed project would complement both existing and future TSM/Transportation Demand Management (TDM) improvements within the study area, and some TSM measures have been incorporated into the proposed project. However, a TSM Alternative alone would not be consistent with the RTP and the ultimate configuration of I-10 as defined in the Project Reports, would not achieve the project goals and objectives to increase the person-carrying capacity and promote ride sharing on I-10, and would not allow a logical extension to close an existing 9.2-mile-long HOV lane system gap.

**No Project Alternative.** The No Project Alternative assumes no changes associated with the proposed project would be made to the existing facility. With this alternative, temporary (i.e., construction) and operational impacts associated with the build alternatives would be avoided. However, it would be inconsistent with local and regional plans of Metro and Caltrans because additional traffic demands would not be satisfied. Without improvements to I-10, safety, travel times, fuel consumption, and air quality would deteriorate throughout the project corridor.

## **S.5 Environmental Analysis**

A list of major potential impacts from both the No Project Alternative and the Proposed Project Alternative is summarized in Table S-1. The proposed project would have potentially

significant impacts within the following issue areas: aesthetics; traffic; biology; paleontology; geology; hazardous waste/materials; hydrology and water quality; land use; and public services and utilities. All impacts are considered to be not significant with incorporation of mitigation measures into the project.

## **S.6 Areas of Controversy**

In 1973-74, State and Federal agencies adopted formal policy and criteria for construction of noise barriers. California leads the nation in both completed and planned soundwalls. A freeway widening project is one of three basic programs under which Caltrans may undertake soundwall construction, the others being new freeway construction and Caltrans' Community Noise Abatement Program.

In order for the area to qualify, it must meet all of the following criteria:

- a. Residential property built prior to the freeway or prior to a major widening;
- b. Has hourly noise levels that exceed the federal 67-decibel (Leg) threshold;
- c. Must be able to achieve at least a 5-decibel reduction; and
- d. Cost does not exceed \$35,000 per residential unit (1987 dollars).

For the proposed project, Caltrans has considered noise abatement at all locations where traffic noise impacts are predicted, and soundwalls have been incorporated into the proposed project. However, some commercial property owners do not want a soundwall constructed along the freeway if it would partially or wholly obstruct the visibility of their business. Under Caltrans Noise Protocol, local hotel property owners can choose to not participate in the noise abatement program; some businesses have written letters to inform Caltrans about their concern that a soundwall could obstruct views of their businesses from passing motorists. Where the owners choose to opt out of the Community Noise Abatement Program, soundwalls will not be constructed.

In one case, blockage of a business not subject to protection under Caltrans Protocol would occur. Soundwall protection of residential properties on East Garvey Avenue South in West Covina could partially affect visibility of the adjacent Penske Audi dealership.

Approximately 200 feet of wall is required in front of the dealership. While Caltrans staff are working with the City and affected parties to resolve this issue, partial blockage of private property views from the freeway is not generally considered an impact under CEQA.

## **S.7 Issues to be Resolved**

The proposed project as assessed in this EIR would result in various potentially significant impacts on the environment. Mitigation measures have been developed as part of the impact analyses to fully offset all impacts to a level of insignificance. With the exception of the soundwall issue affecting the commercial property and adjacent residences noted above, there are no unresolved impacts that would require preparation and approval of a Statement of Overriding Considerations.

**Table S-1 Summary of Major Potential Impacts from Alternatives**

Issue Area	Potential Impact by Alternative		Mitigation Measures for Build Alternative
	No Project Alternative	Proposed Project	
Aesthetics	No Impact	The project's anticipated overall moderate visual change, combined with moderate viewer sensitivity level, would result in a moderate visual impact to the corridor.	<p>VA-1: During the project design stage, architectural detailing will be applied to the retaining walls, including textures, colors, and patterns.</p> <p>VA-2: During the project design and construction stages, existing vegetation in the corridor will be saved and protected to the extent that is feasible.</p> <p>VA-3: During the project design stage, and to the extent feasible, skyline trees will be included in the new plantings to replace those removed by construction.</p>
Traffic	No Impact	<p>During construction, motorists traveling in the immediate vicinity of street, ramp, and lane closures would at times experience some inconvenience from temporary traffic congestion.</p> <p>The proposed project would involve construction that could contribute to short-term impacts to fire protection and emergency services due to delayed response times.</p> <p>Analysis results, shown in Table 3.2-4, indicate that the eastbound I-10 ramps intersection would operate at an unsatisfactory LOS E in 2015 and LOS F in 2030. While the intersection of Vincent Avenue and Plaza / Lakes Drive, as a whole, would operate at a satisfactory LOS in 2030, the north, east and west approaches would operate at an unsatisfactory LOS E.</p>	<p>No mitigation is required; however, the following minimization measures would be implemented:</p> <ul style="list-style-type: none"> <li>• A TMP will be prepared to offset the effects of traffic congestion and access during construction on the freeway, ramps, and local streets.</li> <li>• Residents will be kept informed through public outreach of development and construction plans so that they are aware of construction timing, traffic/transit detour plans, and lane/road closures.</li> <li>• At the northbound Vincent Avenue approach to eastbound I-10 on-ramp, modify the existing shared (through/right) lane to an exclusive through lane and add an exclusive full right turn lane. Additional slight improvement to the intersection can be achieved by adding a deceleration lane for right turn movements, with an approximate storage length of 250 feet.</li> <li>• Increase the capacity of the eastbound I-10 on-ramp from northbound Vincent Avenue through the addition of a lane and the relocation of the proposed ramp meter approximately 250 feet downstream.</li> <li>• Caltrans will periodically coordinate with the transit companies to discuss changes in the construction operations and potential impacts to the transit providers.</li> </ul>
Air Quality	Inconsistent with regional goals and policies for improving air quality within the Basin.	No Impact	Not Applicable

Issue Area	Potential Impact by Alternative		Mitigation Measures for Build Alternative
	No Project Alternative	Proposed Project	
Noise and Vibration	No Impact	In accordance with Caltrans' Standard Specifications, Section 7-1.011, Sound Control Requirements, noise levels generated during construction shall comply with applicable regulations. Modeling results, indicate predicted traffic noise levels ( $L_{eq}[h]$ ) would increase a maximum of 1 dBA with the proposed project. This is not considered a significant impact under CEQA.	No further mitigation is required; soundwalls will be constructed at a number of locations as a component of the proposed project, resulting in reasonable and feasible noise abatement.
Biological Resources	No Impact	In addition to landscape trees, three to five walnut trees and two Chinese elms would be removed at the end of a small, unnamed stream course.	No mitigation is required; however, the following minimization measures would be implemented: <ul style="list-style-type: none"> <li>Removal of trees should occur between September 15 and January 15 to avoid the breeding season. If tree removal must occur during the breeding season, then procedures outlined in the Biology Report will be followed.</li> <li>Trees of both toyon and black walnut species will be planted from suitable nursery stock at a ratio of three replacements for each natural tree removed.</li> </ul>
Cultural and Paleontological Resources	No Impact	<u>Archaeological Resources</u> - No Impact; <u>Historical Resources</u> - No Impact; <u>Paleontological</u> - The Kellogg Hill area has a 'high' potential for exposing significant fossils.	<ol style="list-style-type: none"> <li>CUL-1: In the unlikely event cultural materials are discovered during construction, all earth-moving activity within and around the immediate discovery area will be diverted until a qualified archaeologist can assess the nature and significance of the find.</li> </ol> <p>CUL-2: A qualified principal paleontologist (MS or Ph.D. in paleontology or geology familiar with paleontological procedures and techniques) will be retained.</p> <p>CUL-3: Paleontological monitor, under the direction of the qualified principal paleontologist, will be onsite to inspect cuts for fossils during original grading involving sensitive geologic formations.</p> <p>CUL-4: When fossils are discovered, the paleontologist, or paleontological monitor, will recover them. Construction work in these areas will be halted or redirected to allow recovery of fossil remains in a timely manner.</p>

Issue Area	Potential Impact by Alternative		Mitigation Measures for Build Alternative
	No Project Alternative	Proposed Project	
			<p>CUL-5: Fossil remains collected during the monitoring and salvage portion of the mitigation program will be cleaned, repaired, sorted, and cataloged.</p> <p>CUL-6: Prepared fossils, along with copies of all pertinent field notes, photos, and maps, will then be deposited in a scientific institution.</p> <p>CUL-7: A final report will be completed to document results of the mitigation program.</p> <p>CUL-8: In the unlikely event human remains are discovered, State Health and Safety Code Section 7050.5 states that further disturbances and activities shall cease in any area or nearby area suspected to overlie remains, and the County Coroner contacted. Pursuant to Public Resources Code Section 5097.98, if the remains are thought to be Native American, the coroner will notify the Native American Heritage Commission (NAHC) who will then notify the Most Likely Descendent (MLD). At this time, the person who discovered the remains will contact Gary Iverson, Environmental Chief, so that they may work with the MLD on the respectful treatment and disposition of the remains. Further provisions of PRC 5097.98 are to be followed as applicable.</p>
Geology, Soils, and Seismicity	No Impact	Given the historic landslide activity in the Kellogg Hill area, there is the potential that the proposed project could be adversely affected by landslides.	<p>No mitigation measures are required; however, the following minimization measure would be implemented:</p> <ul style="list-style-type: none"> <li>Retaining walls will be included in the project design for the Kellogg Hill area where ROW constraints do not allow slopes to be cut parallel to the existing slope ratios. The proposed project may include other design features where determined necessary to minimize the potential for losses due to possible future slope failure activity. Retaining walls will be designed and constructed in a manner that satisfies both State and Federal standards and requirements.</li> </ul>
Hazardous Waste/Materials	No Impact	There is a potential that previously unknown hazardous materials or underground storage tanks would be uncovered during construction. Soil contaminated with aeri-ally-deposited lead (ADL) would be removed and disposed. The proposed project would require the acquisition of ROW that may have been	<p>HAZ-1: If groundwater needs to be disturbed and/or extracted during construction, coordination with appropriate regulatory agency shall be done to prevent possible cross contamination. If contamination is found, a work plan shall be prepared by a registered geotechnical engineer to protect the health of construction workers.</p> <p>HAZ-2: ADL soil management will be evaluated for the applicability of the lead variance issued to Caltrans by the Department of Toxic Substances Control.</p>

Issue Area	Potential Impact by Alternative		Mitigation Measures for Build Alternative
	No Project Alternative	Proposed Project	
		contaminated with hazardous materials based on existing and/or past uses, and that could be disturbed during construction. There is potential for the generation of asbestos-containing materials (ACM) waste associated with the demolition and removal of existing bridges and structures on I-10 and of older structures on ROW to be acquired. The existing yellow thermoplastic and yellow-painted traffic stripes on I-10 may also contain lead and/or chromium.	<p>HAZ-3: Bridges and structures shall be surveyed to screen for ACMs and lead-based paint (LBP) prior to construction activities. If ACMs are found, then the contractor will comply with the SCAQMD Rule 1403 notification and removal processes. In addition, disposal of ACMs will be handled in compliance with local, state, and federal requirements. If LBP and/or heavy metals are found, then the contractor shall comply with local, state, and federal rules and regulations for notification, removal process, and disposal activities.</p> <p>HAZ-4: Any hazardous materials or wastes encountered before or during the demolition stage of the proposed project shall be disposed according to current regulatory guidelines.</p> <p>HAZ-5: A worker Health and Safety Plan (HSP) that meets the provisions of California Code of Regulations (Title 22, Section 5192) shall be developed by the proposed project contractor. HSP procedures will address the identification, excavation, handling, and disposal of hazardous wastes and materials that may be found in construction areas.</p> <p>HAZ-6: Removed thermoplastic and yellow paint will be disposed at an appropriate landfill in accordance with local, state, and federal laws.</p>
Hydrology and Water Quality	No Impact	It would be determined during detailed design stage whether temporary encroachment at Walnut Creek or the aforementioned unnamed drainage would be required during construction. A floodplain cannot be altered in any way until it has been shown that such alteration would pass the base flood without significant damage to either the floodplain or surrounding property.	<p>No mitigation measures are required; however, the following minimization measures would be implemented:</p> <ul style="list-style-type: none"> <li>• During final project design, Caltrans will conduct a detailed hydrologic analysis to determine if any flood control devices will require modification to protect the project site and facility from design flood levels. The final design of these flood control devices will be coordinated with all affected cities and the Los Angeles County Department of Public Works.</li> <li>• Caltrans will coordinate with the Federal Emergency Management Agency (FEMA) prior to completion of the final project design to confirm any necessary revisions to the FEMA Flood Insurance Rate Maps or FEMA Special Flood Hazard Areas maps.</li> </ul>
Land Use	No Impact	Three business displacements, all located within West Covina near the Vincent Avenue on-/off-ramp, are currently proposed to be required. Temporary impacts would include temporary construction easements (TCEs)	<p>No mitigation measures are required; however, the following minimization measure would be implemented:</p> <ul style="list-style-type: none"> <li>• A Real Estate Acquisition Management Plan will be developed adhering to the requirements pertaining to land acquisition for projects funded by FTA as prescribed in Volume 49 CFR Part 24, Uniform Relocation Assistance and Real Property Acquisition Policies Act for Federal and Federally</li> </ul>

Issue Area	Potential Impact by Alternative		Mitigation Measures for Build Alternative
	No Project Alternative	Proposed Project	
		on nonresidential and residential properties along the nine-mile-long project ROW.	Assisted Programs, and the California Relocation Assistance Act, 1970. All acquisitions shall follow state and local guidelines for compliance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act.
Agriculture	No Impact	No Impact	No mitigation is required.
Public Services and Utilities	No Impact	The proposed project would involve construction that could contribute to short-term impacts to fire protection and emergency services due to delayed response times. Construction of the proposed project would require the relocation of several public and private utilities within the project area. Utilities could be damaged during construction.	No mitigation is required; however, the following minimization measures would be implemented: <ul style="list-style-type: none"> <li>• Emergency service providers will be alerted in advance of any temporary road closures and delays so they have adequate time to make appropriate accommodations to ensure prompt emergency response times that fulfill their responsibilities and defined service objectives.</li> <li>• Utility providers will be made aware of project developments and be involved in planning of utility rerouting, identification of potential conflicts, and formulation of strategies to deal with unanticipated problems that may arise once construction has begun.</li> </ul>
Parks and Recreation Facilities	No Impact	At Jalapa Park in Covina, indirect temporary air quality and noise impacts are likely to occur during construction.	No mitigation is required; minimization measures to reduce potential air quality and noise impacts during construction are provided in Sections 3.3 and 3.4, respectively.
Source: Parsons, 2011.			



## Table of Contents

<u>Section</u>	<u>Page</u>
<b>SUMMARY</b>	
S.1 Overview of the Project Area .....	S-1
S.2 Purpose and Objectives.....	S-1
S.3 Description of the Proposed Project .....	S-2
S.4 Alternatives .....	S-3
S.5 Environmental Analysis.....	S-4
S.6 Areas of Controversy .....	S-4
S.7 Issues to be Resolved.....	S-5
<b>1.0 PROJECT DESCRIPTION.....</b>	<b>1-1</b>
1.1 Project Background.....	1-1
1.2 Purpose and Need .....	1-4
1.2.1 Purpose.....	1-4
1.2.2 Need .....	1-4
1.3 Existing Facilities.....	1-6
1.3.1 Level of Service Definition.....	1-6
1.3.2 Existing Traffic Demand.....	1-8
1.4 Overview of Proposed Project .....	1-8
1.4.1 Build Nonstandard HOV Lanes Alternative.....	1-9
1.4.2 Nonstandard Design Features .....	1-9
1.4.3 Ramp Modifications.....	1-11
1.4.4 Modifications to Existing Structures .....	1-11
1.4.5 Ingress/Egress Facilities.....	1-13
1.4.6 Retaining Walls and Soundwalls .....	1-13
1.4.7 Right-of-Way Acquisition .....	1-13
1.4.8 Consistency with Regional Planning Documents .....	1-14
1.5 Permits and Approvals Required .....	1-15
1.6 Uses of This Environmental Impact Report.....	1-15
1.6.1 Changes to the Project Design .....	1-16
1.6.2 Changes in Environmental Setting.....	1-16
<b>2.0 ENVIRONMENTAL SETTING .....</b>	<b>2-1</b>
2.1 Regional and Local Setting.....	2-1
2.1.1 General Environmental Conditions.....	2-1
2.1.2 Existing Transportation Facility .....	2-3
2.1.3 Current HOV System.....	2-4
2.2 Area and Local Plans .....	2-4
2.2.1 Local Agency Plans .....	2-4

2.2.2 Other Applicable Plans ..... 2-6

**3.0 ENVIRONMENTAL ANALYSIS..... 3-1**

3.1 Aesthetics and Visual Resources ..... 3.1-1

3.1.1 Existing Conditions..... 3.1-1

3.1.2 Regulatory Requirements..... 3.1-7

3.1.3 Significance Criteria ..... 3.1-8

3.1.4 Impacts..... 3.1-9

3.1.5 Mitigation Measures ..... 3.1-12

3.1.6 Level of Significance after Mitigation..... 3.1-13

3.2 Traffic ..... 3.2-1

3.2.1 Existing Conditions..... 3.2-1

3.2.2 Regulatory Requirements..... 3.2-7

3.2.3 Significance Criteria ..... 3.2-7

3.2.4 Impacts..... 3.2-8

3.2.5 Mitigation Measures ..... 3.2-17

3.2.6 Level of Significance after Mitigation..... 3.2-18

3.3 Air Quality ..... 3.3-1

3.3.1 Existing Conditions..... 3.3-1

3.3.2 Regulatory Requirements..... 3.3-11

3.3.3 Significance Criteria ..... 3.3-12

3.3.4 Impacts..... 3.3-13

3.3.5 Mitigation Measures ..... 3.3-19

3.3.6 Level of Significance after Mitigation..... 3.3-19

3.4 Noise and Vibration ..... 3.4-1

3.4.1 Existing Conditions..... 3.4-1

3.4.2 Regulatory Requirements..... 3.4-7

3.4.3 Significance Criteria ..... 3.4-9

3.4.4 Impacts..... 3.4-9

3.4.5 Mitigation Measures ..... 3.4-18

3.4.6 Level of Significance after Mitigation..... 3.4-18

3.5 Biological Resources ..... 3.5-1

3.5.1 Existing Conditions..... 3.5-2

3.5.2 Regulatory Requirements..... 3.5-7

3.5.3 Significance Criteria ..... 3.5-9

3.5.4 Impacts..... 3.5-10

3.5.5 Mitigation Measures ..... 3.5-13

3.5.6 Level of Significance after Mitigation..... 3.5-14

3.6 Cultural and Paleontological Resources ..... 3.6-1

3.6.1 Existing Conditions..... 3.6-1

3.6.2 Regulatory Requirements..... 3.6-3

3.6.3 Significance Criteria ..... 3.6-4

3.6.4 Impacts..... 3.6-5

	3.6.5	Mitigation Measures .....	3.6-6
	3.6.6	Level of Significance after Mitigation.....	3.6-8
3.7		Geology, Soils, and Seismicity .....	3.7-1
	3.7.1	Existing Conditions.....	3.7-1
	3.7.2	Regulatory Requirements.....	3.7-5
	3.7.3	Significance Criteria .....	3.7-6
	3.7.4	Impacts.....	3.7-6
	3.7.5	Mitigation Measures .....	3.7-8
	3.7.6	Level of Significance after Mitigation.....	3.7-8
3.8		Hazardous Waste/Materials .....	3.8-1
	3.8.1	Existing Conditions.....	3.8-1
	3.8.2	Regulatory Requirements.....	3.8-4
	3.8.3	Significance Criteria .....	3.8-4
	3.8.4	Impacts.....	3.8-5
	3.8.5	Mitigation Measures .....	3.8-7
	3.8.6	Level of Significance after Mitigation.....	3.8-8
3.9		Hydrology and Water Quality.....	3.9-1
	3.9.1	Existing Conditions.....	3.9-1
	3.9.2	Regulatory Requirements.....	3.9-4
	3.9.3	Significance Criteria .....	3.9-9
	3.9.4	Impacts.....	3.9-10
	3.9.5	Mitigation Measures .....	3.9-15
	3.9.6	Level of Significance after Mitigation.....	3.9-18
3.10		Land Use .....	3.10-1
	3.10.1	Existing Conditions.....	3.10-1
	3.10.2	Regulatory Requirements.....	3.10-5
	3.10.3	Significance Criteria .....	3.10-9
	3.10.4	Impacts.....	3.10-10
	3.10.5	Mitigation Measures .....	3.10-13
	3.10.6	Level of Significance after Mitigation.....	3.10-13
3.11		Agriculture .....	3.11-1
	3.11.1	Existing Conditions.....	3.11-1
	3.11.2	Regulatory Requirements.....	3.11-1
	3.11.3	Significance Criteria .....	3.11-1
	3.11.4	Impacts.....	3.11-2
	3.11.5	Mitigation Measures .....	3.11-2
	3.11.6	Level of Significance after Mitigation.....	3.11-2
3.12		Public Services and Utilities .....	3.12-1
	3.12.1	Existing Conditions.....	3.12-1
	3.12.2	Regulatory Requirements.....	3.12-9
	3.12.3	Significance Criteria .....	3.12-9
	3.12.4	Impacts.....	3.12-9

3.12.5	Mitigation Measures .....	3.12-11
3.12.6	Level of Significance after Mitigation.....	3.12-11
3.13	Parks and Recreational Facilities .....	3.13-1
3.13.1	Existing Conditions.....	3.13-1
3.13.2	Regulatory Requirements.....	3.13-1
3.13.3	Significance Criteria .....	3.13-3
3.13.4	Impacts.....	3.13-4
3.13.5	Mitigation Measures .....	3.13-4
3.13.6	Level of Significance after Mitigation.....	3.13-4
<b>4.0</b>	<b>OTHER TOPICAL CEQA ISSUES .....</b>	<b>4-1</b>
4.1	Growth Inducement .....	4-1
4.2	Cumulative Impacts .....	4-2
4.2.1	Planned and Current Projects in the Vicinity of the I-10 Corridor ....	4-2
4.2.2	Cumulative Impacts Analysis .....	4-2
4.3	Climate Change.....	4-9
4.3.1	Background on Climate Change with Respect to Transportation Projects.....	4-9
4.3.2	Estimate of Greenhouse Gas Emissions for Proposed Project.....	4-12
4.4	Significant Environmental Effects which Cannot be Avoided if the Proposed Project is Implemented .....	4-15
4.5	Significant Irreversible Environmental Changes which Would be Caused by the Proposed Project Should it be Implemented.....	4-15
<b>5.0</b>	<b>ALTERNATIVES .....</b>	<b>5-1</b>
5.1	Alternatives Considered.....	5-1
5.1.1	Standard HOV Lanes Alternative .....	5-2
5.1.2	Additional General Purpose Lanes Alternative .....	5-2
5.1.3	Elevated Facility Alternative .....	5-2
5.1.4	Traffic System Management Alternative.....	5-3
5.2	No Project Alternative .....	5-3
5.3	Nonstandard HOV Lanes Alternative (Proposed Project).....	5-3
5.4	Environmentally Superior Alternative.....	5-4
<b>6.</b>	<b>REFERENCES.....</b>	<b>6-1</b>
<b>7.0</b>	<b>COMMENTS AND COORDINATION .....</b>	<b>7-1</b>
7.1	Initiation of Studies Letters.....	7-1
7.1.1	1993 Initiation of Studies Letters and Scoping.....	7-1
7.1.2	2001 Re-Initiation of Studies Letters.....	7-1
7.2	Consulation with Local Jurisdictions.....	7-2
7.3	Distribution of the Draft Environmental Document .....	7-2
7.3.1	Public Comment Period for the 2003 IS/EA.....	7-2
7.4	Public Hearing .....	7-2

7.5 Distribution of the Draft Environmental Impact Report (EIR)..... 7-3

**8.0 DISTRIBUTION LIST..... 8-1**

**9.0 LIST OF PREPARERS..... 9-1**

**APPENDICES**

- A. CEQA Environmental Checklist
- B. Notice of Preparation and Responses
- C. Glossary of Technical Terms
- D. Mitigation Summary
- E. Recommended Noise Barrier Locations
- F. List of Acronyms
- G. List of Technical Studies

**List of Figures**

Figure 1-1 Project Vicinity Map..... 1-2

Figure 1-2 Project Location Map..... 1-3

Figure 1-3 Level of Service Definitions ..... 1-7

Figure 1-4 Typical Cross Sections for the Nonstandard HOV Lanes..... 1-10

Figure 2-1 Local Jurisdictions within the Project Corridor ..... 2-2

Figure 2-2 Existing and Future HOV Lane Projects in the Southern California Region ..... 2-5

Figure 2-3 Campus Master Plan Map, Cal Poly Pomona ..... 2-8

Figure 3.1-1 Project View Locations ..... 3.1-2

Figure 3.1.2a Project Viewpoints..... 3.1-3

Figure 3.1.2b Project Viewpoints ..... 3.1-4

Figure 3.1-3 Concrete Barrier Architectural Treatment ..... 3.1-13

Figure 3.4-1 Noise Levels of Common Activities ..... 3.4-8

Figure 3.5-1. Known Location of Coastal California Gnatcatchers, Designated Critical  
Habitat, and a Significant Ecological Area in the Vicinity of Kellogg Hill ... 3.5-5

Figure 3.5-2. Unnamed Seasonal Stream Course and NWI Wetland ..... 3.5-6

Figure 3.7-1 Los Angeles Region Fault Locations for the I-10 HOV Lanes Project ..... 3.7-3

Figure 3.7-2 Landslide Inventory and Areas of Significant Grading in San Jose Hills.... 3.7-5

Figure 3.9-1 Project Location within San Gabriel River Watershed..... 3.9-2

Figure 3.10-1 Land Use Map..... 3.10-3

Figure 3.10-2 Potential Full Acquisitions ..... 3.10-12

Figure 3.12-1 Public Services ..... 3.12-6

Figure 3.13-1 Parks and Recreational Facilities within the I-10 Study Area ..... 3.13-2

Figure 4.2-1 Location of Cumulative Projects..... 4-5

Figure 4.3-1 California Greenhouse Gas Forecast..... 4-11

Figure 4.3-2 Possible Effect of Traffic Operation Strategies  
in Reducing On-road CO<sub>2</sub> Emission..... 4-11

## List of Tables

Table S-1 Summary of Major Potential Impacts from Alternatives .....	S-6
Table 1-1 General Descriptions of Levels of Service .....	1-6
Table 1-2 Proposed Bridge Improvements .....	1-11
Table 1-3 Potential Permits and Approvals for Proposed Project .....	1-15
Table 3.2-1 AM/PM Peak-Period Volume Summary and ADT for Existing and Future Conditions.....	3.2-3
Table 3.2-2 Existing Park-and-Ride Lots in Proposed Project Vicinity .....	3.2-4
Table 3.2-3 Occupancy Distribution (persons/vehicle) .....	3.2-12
Table 3.2-4 Projected Vincent Avenue LOS for Buildout (2015) and Future (2030) Conditions.....	3.2-13
Table 3.2-5 Existing Accident Rates per MVM .....	3.2-15
Table 3.3-1 Ambient Air Quality Standards .....	3.3-2
Table 3.3-2 Health Effects Summary for Criteria Air Pollutants .....	3.3-4
Table 3.3-3 Criteria Air Pollutants Data Summary (Azusa Monitoring Station) .....	3.3-5
Table 3.3-4 South Coast Air Basin Attainment Status .....	3.3-9
Table 3.3-5 Existing and Future Particulate Matter Emissions (lb/day).....	3.3-16
Table 3.3-6 MSAT Emissions in Horizon Year (2035).....	3.3-18
Table 3.4-1 Traffic Noise, $L_{eq}(h)$ , Prediction Summary (dBA).....	3.4-2
Table 3.4-2 Traffic Noise, $L_{eq}(h)$ , Prediction Summary (dBA) at Forest Lawn Memorial Park Cemetery.....	3.4-7
Table 3.4-3 Construction Equipment Noise.....	3.4-10
Table 3.4-4 Summary of Soundwall Evaluation.....	3.4-13
Table 3.5-1 All CNDDDB Occurrences within 0.5-Mile of I-10 between Puente Avenue and SR 57 .....	3.5-4
Table 3.8-1 Summary of Initial Site Assessments and Hazardous Waste Assessments along the Project Corridor .....	3.8-2
Table 3.9-1 Best Management Practices Applicable of the Proposed Project.....	3.9-17
Table 3.10-1 Study Area Land Use.....	3.10-2
Table 3.10-2 Potential Property Acquisitions .....	3.10-13
Table 3.12-1 Public and Private Services in the I-10 Project Study Area .....	3.12-5
Table 3.12-2 Utilities in the I-10 Project Study Area .....	3.12-8
Table 4.2-1 Cumulative Projects List .....	4-3
Table 4.3-1 Annual Operational GHG Emissions Associated with Proposed Project (Existing and Opening Year).....	4-13
Table 4.3-2 Annual Operational GHG Emissions Associated with Proposed Project (Existing and Horizon Year).....	4-14

# **CHAPTER 1**

## **PROJECT DESCRIPTION**



## **1.0 Project Description**

### **1.1 Project Background**

The San Bernardino Freeway, Interstate Route 10 (I-10), is a major east-west freeway used for intraregional, interregional, and interstate travel and shipping in southern California. I-10, part of the Federal National Highway System, is a major commuter route linking Los Angeles, San Bernardino, and Riverside counties and is a major travel route to and from states east of California. It is a major truck route of key economic importance in southern California. I-10 begins at 4<sup>th</sup> Street in the city of Santa Monica and extends east through Los Angeles County to San Bernardino and Riverside counties, continuing out of California and terminating on the east coast of the United States.

Figure 1-1 is a project vicinity map, and a project location map is provided as Figure 1-2. The proposed 'Add One High Occupancy Vehicle (HOV) Lane in Each Direction on the San Bernardino Freeway (I-10) from Puente Avenue to State Routes 57/71 in Los Angeles County' Project (henceforth referred to as the 'I-10 HOV Lane Project' or 'proposed project') is located along I-10 in Los Angeles County, between Puente Avenue in the city of Baldwin Park and the State Route 57 (SR 57)/State Route 71 (SR 71) interchange in the city of Pomona. It would extend easterly a distance of 9.2 miles.

During both morning and evening peak periods, heavy congestion currently occurs eastbound and westbound in the project study corridor. To ameliorate the traffic congestion, the project proposes adding one HOV lane adjacent to the center median in each direction.

This Draft Environmental Impact Report (DEIR) follows previous environmental documentation that was prepared for a longer HOV lane improvement project encompassing the same portion of I-10. In the early 2000s, the California Department of Transportation (Caltrans), in cooperation with the Los Angeles County Metropolitan Transportation Authority (Metro), completed an Initial Study/Environmental Assessment (IS/EA) to assess impacts associated with an approximately 11.2-mile-long section of I-10 from Interstate Route 605 (I-605) easterly to the SR 57/SR 71 interchange. The IS/EA evaluated a range of alternatives to meet existing (at the time) and future traffic demands. This process resulted in selection of the Build Nonstandard HOV Lanes as the preferred alternative for subsequent design and construction. In January 2003, a final Mitigated Negative Declaration (MND) was approved by Caltrans and Metro, and a Finding of No Significant Effect (FONSI) was approved by the Federal Highway Administration (FHWA).





Figure 1-2 Project Location Map

Since January 2003, several changes to the project have occurred, as well as changes to circumstances surrounding the project. Refined engineering development of the proposed project has resulted in changes to several arterial ramp interchanges, soundwall modifications, right-of-way (ROW) acquisitions, and retaining wall locations. Eight years of time passage has also resulted in changes to the surrounding land uses and businesses.

Currently, Caltrans is constructing HOV lanes and other improvements along the westernmost 2-mile-long section of the former project study area, which extends easterly on I-10 from I-605 to just west of Puente Avenue in the city of Baldwin Park. This portion of I-10, referred to as ‘Segment 1’ in the IS/EA, is not part of the analysis in this DEIR.

## 1.2 Purpose and Need

### 1.2.1 Purpose

The purpose of the proposed project is to:

- Improve mobility for persons traveling within the corridor by increasing the person-carrying capacity of I-10.
- Decrease travel time for HOVs and public transit vehicles along the corridor.
- Increase continuity of the HOV system by closing the gap between existing and planned HOV facilities on both the west and east ends of the corridor.
- Provide incentive and opportunity for individual drivers to switch from single-occupancy vehicles to carpooling or transit.
- Implement corridor improvements that are consistent with the key goals of the Southern California Association of Governments (SCAG) 2008 Regional Transportation Plan (RTP).
- Provide regional air quality benefits consistent with the South Coast Air Quality Management District (SCAQMD) 2007 Air Quality Management Plan (AQMP).

### 1.2.2 Need

Eastern Los Angeles County and western San Bernardino County are continuing to grow at a rapid rate, including development of residential and employment land uses. The SCAG region is projected to add 5.9 million people to reach 24 million people by 2035. SCAG projects 2.5 million new jobs generated to support this forecasted population growth. This level of population and job growth is expected to yield 2 million additional households in the region at an average of three persons per household (SCAG, 2008).

**Traffic Demand.** I-10 has historically experienced, and will continue to experience, serious traffic congestion, particularly during peak periods. The I-10 corridor currently encompasses several major traffic generators between downtown Los Angeles and the County line, including County USC Medical Center; Cal State University, Los Angeles; Eastland and

Plaza Shopping Centers; Cal Poly Pomona; Mount San Antonio College; Pomona Fairplex; and Claremont Colleges. In addition, downtown Los Angeles is a major trip attractor for those traveling I-10, due to its position as a major employment center for the region.

Peak-period traffic demand on I-10 currently exceeds capacity and, as a result of existing and forecasted growth, is expected to continue to exceed capacity. In the westbound direction, delays occur due to recurrent congestion in the morning peak period of 6:00 AM to 9:00 AM. Eastbound delays occur in the afternoon peak period between 3:00 PM and 7:00 PM. (Parsons, 2009)

Long-range forecasts indicate continued increases in traffic volumes on I-10, related to continuing development of employment opportunities in the greater Los Angeles area and continuing residential development in Los Angeles, Riverside, and San Bernardino counties. The proposed I-10 HOV Lane Project would assist in addressing commuter needs while focusing limited transportation capital on improvements that support HOV modes.

**Connectivity.** The I-10 corridor from downtown Los Angeles to San Bernardino, including the study area, crosses several other freeways (i.e., I-605, I-710, I-210, I-15, and I-215) and major north-south arterials. The corridor lacks nearby major parallel arterials that span extensive distances from west to east. The proposed project would close a 9-mile-long gap to provide a continuous west-east HOV lane facility that crosses all of these freeways and arterials.

**Carrying Capacity.** HOV lanes are currently operational from downtown Los Angeles to I-605 and from SR 57 to I-15 in San Bernardino County. In addition, a 2.2-mile-long project is currently under construction to extend the HOV lanes east to Puente Avenue. The proposed project would close a gap between Puente Avenue and SR 57 that will still exist on I-10 after construction of the I-605 to Puente Avenue extension. Given current peak-period occupancy requirements on segments of I-10 with HOV lanes, it has been shown that HOV lanes can carry more than four times the number of people carried on a mixed-flow lane (Metro, 2007). Closing this gap would provide continuous HOV lane service on this high-performing HOV lanes corridor.

**Accident Conditions.** Caltrans estimated traffic accident rates for I-10 using the Traffic Accident Surveillance and Analysis System (TASAS). Between 2005 and 2007, the average accident rate for the subject I-10 corridor was evaluated at 0.81 accidents per million vehicle miles (MVM) traveled on eastbound I-10 and 1.63 accidents per MVM on westbound I-10. The expected accident rate for a similar statewide facility is 1.05 accidents per MVM. (Parsons, 2009) Most of the recorded accidents for this segment of I-10 have been sideswipes, rear-ends, and broadsides. These types of accidents are usually associated with end-of-queue or stop-and-go conditions, which are typical on this segment of I-10.

It is anticipated that the existing accident rates would decrease after implementation of the proposed I-10 HOV Lane Project. The addition of median HOV lanes would result in

reduced congestion, which is anticipated to lead to a reduction in the types of accidents currently occurring on this section of I-10 (Parsons, 2009).

### 1.3 Existing Facilities

#### 1.3.1 Level of Service Definition

Road capacity is generally measured as the number of vehicles that can reasonably pass over a given section of road in a given period of time. The *Highway Capacity Manual (HCM)* (National Transportation Research Board, 2000) identifies travel speed, freedom to maneuver, and proximity to other vehicles as important factors in determining the level of service (LOS) on a road. Daily traffic volumes are used to estimate the extent to which peak-hour traffic volumes equal or exceed the maximum desirable capacity of a road.

Traffic flow is classified by LOS, ranging from LOS A, defined as free-flow traffic with no delays, to LOS F, defined as forced flow with substantial delays, as shown in Table 1-1. At LOS E or higher, the theoretical capacity of a road is considered to be exceeded. Figure 1-3 visually depicts traffic flow conditions for LOS A to LOS F.

The LOS for a road is calculated by dividing the total traffic volume on that segment by the theoretical capacity of the segment. The volume to capacity (V/C) ratio provides an expression of traffic flow and congestion on a road. As shown in Table 1-1, LOS F is subdivided to better correlate the degree to which a road has exceeded its theoretical capacity as a function of the amount of time a road is congested. The V/C ratios for LOS F to LOS F3 range from 1.0 to 1.46 and greater, reflecting greater delays and congestion as the V/C ratio increases.

**TABLE 1-1. GENERAL DESCRIPTIONS OF LEVELS OF SERVICE**

Level of Service (LOS)	Description/Condition
LOS A	Excellent – Free flow, unimpeded ability to maneuver within the traffic stream; effects of incidents or point breakdowns are easily absorbed at this level.
LOS B	Very good – Reasonably free flow, ability to maneuver within the traffic stream is only slightly restricted, and effects of minor incidents are still easily absorbed.
LOS C	Good – Freedom to maneuver is noticeably restricted, lane changes require more care and vigilance, and queues form behind any blockage.
LOS D	Fair – Density begins to increase somewhat more quickly; minor incidents can be expected to create queuing because there is little space to absorb disruptions.
LOS E	Capacity – Virtually no usable gaps in the traffic stream; maneuverability within the traffic stream is extremely limited.
LOS F	Forced flow – Breakdown in vehicular flow, queues form behind traffic incidents or weaving areas. Caltrans rates LOS F by the length of time that congestion will be experienced at a certain point, as follows: F-0: 15 minutes to 1-hour of congestion F-1: 1 to 2 hours of congestion F-2: 2 to 3 hours of congestion F-3: 3 or more hours of congestion

Source: Caltrans, 2010.

# LEVELS OF SERVICE

## for Freeways

Level of Service	Flow Conditions	Operating Speed (mph)	Technical Descriptions
<b>A</b>		70	Highest quality of service. Traffic flows freely with little or no restrictions on speed or maneuverability. <b>No delays</b>
<b>B</b>		70	Traffic is stable and flows freely. The ability to maneuver in traffic is only slightly restricted. <b>No delays</b>
<b>C</b>		67	Few restrictions on speed. Freedom to maneuver is restricted. Drivers must be more careful making lane changes. <b>Minimal delays</b>
<b>D</b>		62	Speeds decline slightly and density increases. Freedom to maneuver is noticeably limited. <b>Minimal delays</b>
<b>E</b>		53	Vehicles are closely spaced, with little room to maneuver. Driver comfort is poor. <b>Significant delays</b>
<b>F</b>		<53	Very congested traffic with traffic jams, especially in areas where vehicles have to merge. <b>Considerable delays</b>

**Figure 1-3**  
**Level of Service Definitions**

### 1.3.2 Existing Traffic Demand

I-10 operates as an eight-lane facility throughout most of the project length from Puente Avenue to the SR 57/SR 71 interchange. There are four general purpose lanes and one auxiliary lane in each direction between Puente Avenue and Citrus Street. Between the Citrus Street and Via Verde Street ramps, the four-lane freeway operates with one auxiliary lane in the eastbound direction. On the westbound side of I-10 between Kellogg Drive and Via Verde Street, there is a fifth mixed-flow lane to compensate for congestion caused by traffic slowing due to a steep (i.e., 5.5 percent) uphill grade. To manage traffic, ramp meters are provided on nearly all ramps in the project study area. Recurrent congestion occurs westbound in the morning peak hours and eastbound in the evening peak hours. Most of the project study area currently operates at capacity in the morning and evening peak hours.

Other freeways in the area include I-605, a north-south freeway crossing I-10 approximately 2.2 miles west of the Puente Avenue terminus; SR 57, a north-south freeway crossing I-10 at the east project terminus; SR 71, a north-south freeway also intersecting I-10 at the east project terminus; State Route 60 (SR 60), an east-west freeway located 3 miles south of and parallel to I-10; and I-210, an east-west freeway located approximately 3 miles north of and parallel to I-10. These other area freeways are shown in Figure 1-2. I-210 and SR 60 operate at congested levels during peak periods and do not offer reasonable alternatives to I-10.

The projected year 2035 peak-period traffic volumes and LOS on I-10 were calculated as part of an I-10 Proposed HOV Traffic Study (Parsons, 2009). Without the proposed project, it is projected that AM peak period, westbound traffic volumes between Puente Avenue and Citrus Street would average approximately 24,392 vehicles. The projected AM peak period, westbound traffic volumes between Citrus Street and the SR 57/SR 71 interchange would average approximately 23,806 vehicles. The PM peak period projections indicate volumes of 39,950 between Puente Avenue and Citrus Street and 38,603 between Citrus Street and the SR 57/SR 71 interchange. Average speeds are projected to range between 23 and 31 miles per hour (mph) in the AM peak period and 14 to 22 mph during the PM peak period.

### 1.4 Overview of Proposed Project

The Proposed Project Alternative is described in this section of the DEIR. Alternatives to the proposed project, including the No Project Alternative, are described in Chapter 5 (Alternatives). Chapter 5 also includes a list of alternatives that have been withdrawn from consideration in this environmental document.

Although several build alternatives were evaluated, the Build Nonstandard HOV Lanes Alternative was selected as the proposed project based on the following considerations: (1) potential environmental effects, (2) engineering and design constraints, (3) cost, and (4) consistency with regional planning for a comprehensive network of freeway HOV facilities.

The proposed project would entail the addition of one HOV lane in the center freeway median along 18 lane-miles (nine in each direction). To accommodate HOV lanes, center median reconstruction, freeway widening, and striping and signage improvements would be necessary. Additional work for the complete project footprint includes modification of adjoining freeway ramps, realignment of frontage roads, and construction of soundwalls, and retaining walls where required. HOV passing (i.e., climbing) lanes would be provided in the uphill direction where existing grades exceed 3 percent.

For construction purposes, the proposed project would be divided into two phases. In this way, separate construction packages can be issued for both the section of I-10 between Puente Avenue and Citrus Street and between Citrus Street and the SR 57/SR 71 interchange. The segment between Puente Avenue and Citrus Street would be constructed as the first phase, followed by a second phase to be constructed when funding becomes available. Phase 2 includes rehabilitation (overlay or lane replacement) for the entire length of five miles, resulting in a 2- to 6-inch profile change.

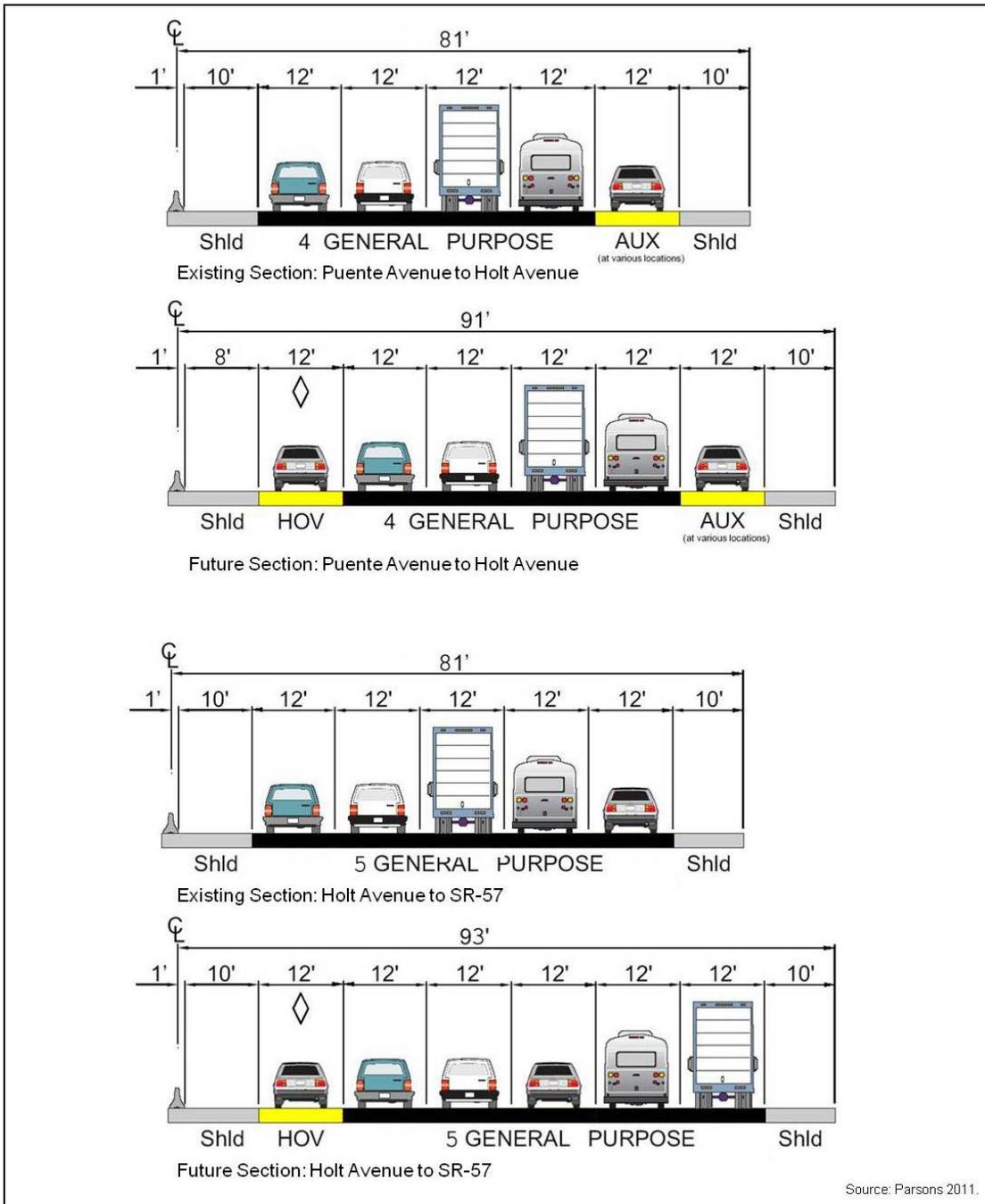
The HOV lanes would operate 24 hours per day, seven days per week, and they would require vehicle occupancy of two or more persons.

#### **1.4.1 Build Nonstandard HOV Lanes Alternative**

The proposed project would consist of constructing one median HOV lane in each direction using a typical 91-foot-wide cross section where auxiliary lanes exist. Where there are no existing or proposed auxiliary lanes, the half-cross section freeway width would be 79 feet. East of Holt Avenue where there are five general purpose lanes, a 93-foot-wide typical cross section would be necessary. Work would include widening the existing freeway on the outside of the existing traffic lanes, with restriping to accommodate the HOV lanes in the median. This alternative would incorporate a nonstandard eight-foot-wide inside shoulder west of Holt Avenue and solid double line striping in lieu of an HOV buffer for the entire corridor. Typical cross sections for two operational scenarios associated with the proposed project are shown in Figure 1-4.

#### **1.4.2 Nonstandard Design Features**

The proposed project chiefly utilizes standard design features; however, the use of some nonstandard design features would be applied to decrease the need for substantial ROW property acquisition, reduce project costs, and help minimize environmental impacts. For a complete list of the nonstandard design features, refer to the Project Report (Caltrans, 1994; Caltrans 2002e) for each construction segment.



**Figure 1-4**  
Typical Cross Sections for the Nonstandard HOV Lanes

### 1.4.3 Ramp Modifications

As part of the proposed project, the existing ramp facilities at the following locations would be modified slightly to accommodate the widened mainline freeway cross section:

<b>Construction Phase 1</b>	Puente Avenue	Sunset Avenue
	West Covina Parkway	Vincent Avenue
	Azusa Avenue	
<b>Construction Phase 2</b>	Citrus Street	Barranca Avenue
	Grand Avenue	Holt Avenue
	Via Verde Street	Kellogg Drive

The existing ramps at most of the above locations are currently nonstandard and would remain nonstandard after the addition of the HOV lanes. All these ramps would be modified only to the extent required to accommodate the mainline widening.

The following three ramps are proposed for HOV bypass lanes, which would allow entering HOVs to bypass queues of single-occupant vehicles at ramp meters: Citrus Street, Holt Avenue, and Kellogg Drive. (Parsons, 2009)

Additional ramp modifications would include California Highway Patrol (CHP) enforcement areas where economical and where existing ROW is adequate to accommodate this purpose. One CHP enforcement area is proposed to be located east of Sunset Avenue to east of Vincent Avenue. Another enforcement area is proposed to be located west of Citrus Street to west of Barranca Street (Parsons, 2009). As part of this work, ramp meters would be moved or modified where required.

### 1.4.4 Modifications to Existing Bridges and Other Facilities

As shown in Table 1-2, construction work is proposed at several existing local street freeway bridge interchange crossings to accommodate the widened freeway cross section. Street lowering between a minimum of 4 inches (Puente Avenue) and 2 feet (Via Verde Street) is required at the undercrossings shown on the table. Changes to local street profiles would also entail related modifications to stormwater pump stations and inlets where necessary.

**TABLE 1-2. PROPOSED BRIDGE IMPROVEMENTS**

<b>Local Street Affected</b>	<b>Activity</b>	<b>Street Lowering Required?</b>
Puente Avenue Undercrossing	Widen bridge	Yes
Cameron Avenue Undercrossing	Widen and partially replace bridge	No
West Covina Parkway Undercrossing	Widen bridge	Yes

Sunset Avenue	Add barrier	N/A
Vincent Avenue Undercrossing	Widen and partially replace bridge	No
Lark Ellen Avenue Undercrossing	Widen bridge	No
Azusa Avenue Undercrossing	Widen bridge	Yes
Hollenbeck Street Undercrossing	Widen bridge	No
Citrus Street Undercrossing	Widen bridge	Yes
Barranca Avenue Overcrossing	Construct retaining walls	N/A
Walnut Creek Overcrossing	Widen bridge	N/A
Grand Avenue Undercrossing	Widen bridge	No
Holt Avenue Undercrossing	Widen bridge	Yes
Via Verde Undercrossing	Widen bridge	Yes
Kellogg Drive Undercrossing	Widen bridge	No
Source: Caltrans, 1994; Caltrans 2002e.		

Extensive improvements are proposed for the Vincent Avenue interchange, as follows:

- Remove eastbound I-10 collector / distributor road and loop ramp in the southeast quadrant
- Widen eastbound I-10 off-ramp terminal to Vincent Avenue from 2 to 3 lanes; one left and two right turn lanes
- Realign eastbound on-ramp from northbound Vincent Avenue and increase storage through the relocation of ramp metering, approximately 335 feet downstream
- Remove right turn bypass lanes at on-ramps
- Relocate the eastbound busway westerly, between the eastbound I-10 off-ramp and the eastbound I-10 loop on-ramp from southbound Vincent Avenue
- Install crosswalk on the south leg of the intersection of eastbound I-10 ramps and Vincent Avenue

- Modify lane designation on northbound and southbound Vincent Avenue approaches to the westbound I-10 ramps as follows: 2.5 through lanes; 1.5 right turn lanes (from 3 through lanes)
- Modify lane designation at the westbound I-10 off-ramp as follows: one left turn lane, one shared (left/right), and one right turn lane
- Modify lane designation for southbound Vincent Avenue approach at eastbound I-10 ramps as follows: 2.5 through lanes; 1.5 right turn lanes (from 3 through lanes). (Caltrans, 2011)

Bus shelters would be refurbished/renovated at several locations. Shelters and associated public sidewalk access at both Vincent Avenue and Via Verde Street would be relocated. The proposed project would also include new sidewalk along South Garvey Avenue at the West Covina Civic Center between Pacific/West Covina Parkway and Sunset Avenue.

#### **1.4.5 Ingress/Egress Facilities**

Ingress/egress merge facilities would be provided at the following approximate locations to facilitate entry and exit to and from the HOV lanes and the mixed-flow lanes:

<b>Construction Phase 1</b>	Between Vincent Avenue and Azusa Avenue
<b>Construction Phase 2</b>	Between Holt Avenue and Via Verde Street (eastbound and westbound) Between Via Verde Street and Kellogg Drive (eastbound)

No direct ingress/egress ramps would be provided between the HOV lanes and arterial roads crossing I-10.

#### **1.4.6 Retaining Walls and Soundwalls**

Modeling results indicate that predicted traffic noise levels ( $L_{eq[h]}$ ) for the design-year proposed project conditions would approach or exceed the federal Noise Abatement Criteria (NAC) of 67 A-weighted decibels (dBA) for Activity Category B land uses at many frequent outdoor use areas near I-10. Caltrans has considered noise abatement at all locations where traffic noise impacts are predicted, and soundwalls have been incorporated into the proposed project, as shown in Appendix E, Recommended Noise Barrier Locations. Under Caltrans Noise Protocol, local hotel property owners can choose to not participate in the noise abatement program; some businesses have written letters to inform Caltrans about their concern that a soundwall could obstruct views of their businesses from passing motorists. Retaining walls would also be incorporated into the project where required by design.

#### **1.4.7 Right-of-Way Acquisition**

The proposed project would require the acquisition of ROW as follows:

**Construction Phase 1.** Temporary construction easements (TCEs) would be required for this construction phase to build soundwalls and retaining walls. Construction may also result in encroachments into existing frontage roads. Encroachment Permits would be required from the cities of Baldwin Park and West Covina for construction adjacent to frontage roads. Two full nonresidential acquisitions would be required near the Vincent Avenue eastbound offramp in the City of West Covina, including one restaurant and one restaurant/retail store.

**Construction Phase 2.** TCEs would be required for this construction phase to build soundwalls and retaining walls, as well as for utilities work. Construction may also result in encroachments into existing frontage roads. Encroachment Permits would be required from the cities of West Covina and Covina for construction adjacent to frontage roads.

#### 1.4.8 Consistency with Regional Planning Documents

The proposed I-10 HOV Lane Project is part of a regional network of existing and planned HOV facilities (see Figure 2-2). The proposed project would be consistent with the following state and regional transportation plans and programs:

- 2008 RTP. FHWA issued a transportation and air quality conformity determination for the 2008 RTP, which includes the proposed I-10 HOV Lane Project, on June 5, 2008.
- Regional Transportation Improvement Program (RTIP). The RTIP, approved by FHWA and the Federal Transit Administration (FTA) on September 2, 2010, includes the proposed I-10 HOV Lane Project.
- State Transportation Improvement Program (STIP). This multi-year capital improvement program of transportation projects on and off the State Highway System identifies the I-10 HOV Lane Project as a programmed project as of the April 2010 California Transportation Commission (CTC) Meeting.
- Long Range Transportation Plan (LRTP). The 2009 LRTP is Metro's long-range planning tool to identify the county's best transportation options and funding availability; this plan includes the I-10 HOV Lane Project.
- Final Report – A Recommended HOV System for Los Angeles County (Metro, October 23, 1996). This 20-year plan includes the proposed I-10 HOV Lane Project.
- 2008 HOV Annual Report (Caltrans, District 7, January 2009). This report describes the goals and history of the HOV system the Los Angeles metropolitan area and includes profiles of existing HOV facilities and updates on recently completed projects and projects that are under construction.

- District System Management Plan (Caltrans, District 7, 1996). This Plan discusses interdistrict and interregional HOV elements, including the proposed I-10 HOV Lane Project.

### 1.5 Permits and Approvals Required

The proposed project would require permits from federal, state, and local agencies. The permits, reviews, and approvals listed in Table 1-3 could potentially be required for project construction.

**TABLE 1-3 POTENTIAL PERMITS AND APPROVALS FOR PROPOSED PROJECT**

Agency	Permit/Authority	Purpose
<b>Federal</b>		
FHWA	Transportation Conformity/Clean Air Act (CAA)	Conformity determination required, pursuant to CAA and derived regulations.
<b>State</b>		
State Water Resources Control Board (SWRCB)	General Construction Storm Water Permit/Order No. 2009-0009-DWQ; National Pollutant Discharge Elimination System (NPDES) No. CAS000002	Compliance with this permit is triggered for development projects that would affect greater than 1-acre of land within California.
<b>Regional and Local</b>		
Los Angeles RWQCB	Waste Discharge Requirements for Discharge of Groundwater from Construction and Project Dewatering to Surface Waters in Coastal Watersheds of Los Angeles and Ventura Counties, Order No. R4-2008-0032, NPDES Permit No. CAG994004	Compliance with Dewatering Permit required for any regulated discharge of groundwater to the environment during construction.

Source: Parsons, 2011.

### 1.6 Uses of This Environmental Impact Report

The purpose of this DEIR is to provide decision makers, other responsible or interested agencies, and the general public with appropriate and sufficient information regarding the potential environmental effects of the proposed I-10 HOV Lane Project. This document has been prepared by Caltrans as the Lead Agency in accordance with the requirements of the California Environmental Quality Act (CEQA) (Cal Pub. Res. Code Section 21000 *et seq.*, as amended) and the implementation guidelines (Cal Code Regs., Title 14, Section 15000 *et seq.*). The environmental review process has been established to enable decision makers, the public, and responsible agencies to evaluate a project in terms of its environmental consequences, to examine and implement methods of eliminating or reducing potential adverse impacts, and to consider alternatives to the proposed project. While CEQA requires that major consideration be given to avoiding environmental damage, the Lead Agency and other responsible public agencies must balance adverse environmental effects against other

objectives, including economic and social goals, in determining whether and in what manner the project should be approved.

Caltrans, as the Lead Agency under CEQA, has determined that an EIR is appropriate for this action because of the changes described below that have occurred since preparation of the IS/MND.

### **1.6.1 Changes to the Project Design**

Since completion of the May 24, 2002, Draft Relocation Impact Report (DRIR), changes in project design were made to minimize impacts to adjacent properties. The 2010 revision of the DRIR and revised engineering drawings from 2011 indicated that project design was reconfigured to lessen the impact on adjacent properties. As a result, the residential properties affected by the proposed project are now limited to temporary and permanent easements.

For much of the project corridor, project design allows for an 8- to 10-foot-wide median shoulder, a 12-foot-wide HOV lane, four 12-foot-wide mixed-flow lanes, a 12-foot-wide auxiliary lane where applicable, and a 10-foot-wide outside shoulder in each direction. In addition to these proposed design changes, there would be a 12-foot-wide HOV passing lane when grades exceed 3 percent.

In addition to the design changes described above, the median treatment for the proposed project would be modified. In this regard, the concrete barrier median would have a pattern simulating stone and mortar.

### **1.6.2 Changes in Environmental Setting**

As discussed above, three segments comprised the project corridor in the approved 2003 IS/EA. The three-segment corridor originated at I-605 in the city of Baldwin Park and continued through to the SR 57/SR 71 interchange. At the completion of the environmental process in 2003, funding was only available for Segment 1 of the previously identified project corridor; therefore, Segment 1, which runs from I-605 to Puente Avenue, is not evaluated in this report. There also have been some isolated changes in the physical land use within the affected corridor. As an example, the Westfield Mall on the south side of I-10 (at Vincent Avenue) has experienced changes in its business structures since 2003.

**CHAPTER 2**  
**ENVIRONMENTAL SETTING**



## 2.0 Environmental Setting

### 2.1 Regional and Local Setting

#### 2.1.1 General Environmental Conditions

As shown in Figure 2-1, the proposed I-10 HOV Lane Project corridor extends just over 9 miles from west to east through the jurisdictions of Baldwin Park, West Covina, Covina, Los Angeles County (unincorporated), Pomona, and San Dimas. The communities along this section of I-10 were largely developed along with the freeway in the 1950s. The project corridor can be characterized as urban, with the mostly unincorporated, hilly east end less densely developed than incorporated land to the west of Grand Avenue. Major land uses within the project corridor are commercial, residential, cemetery, and public (i.e., Cal Poly Pomona).

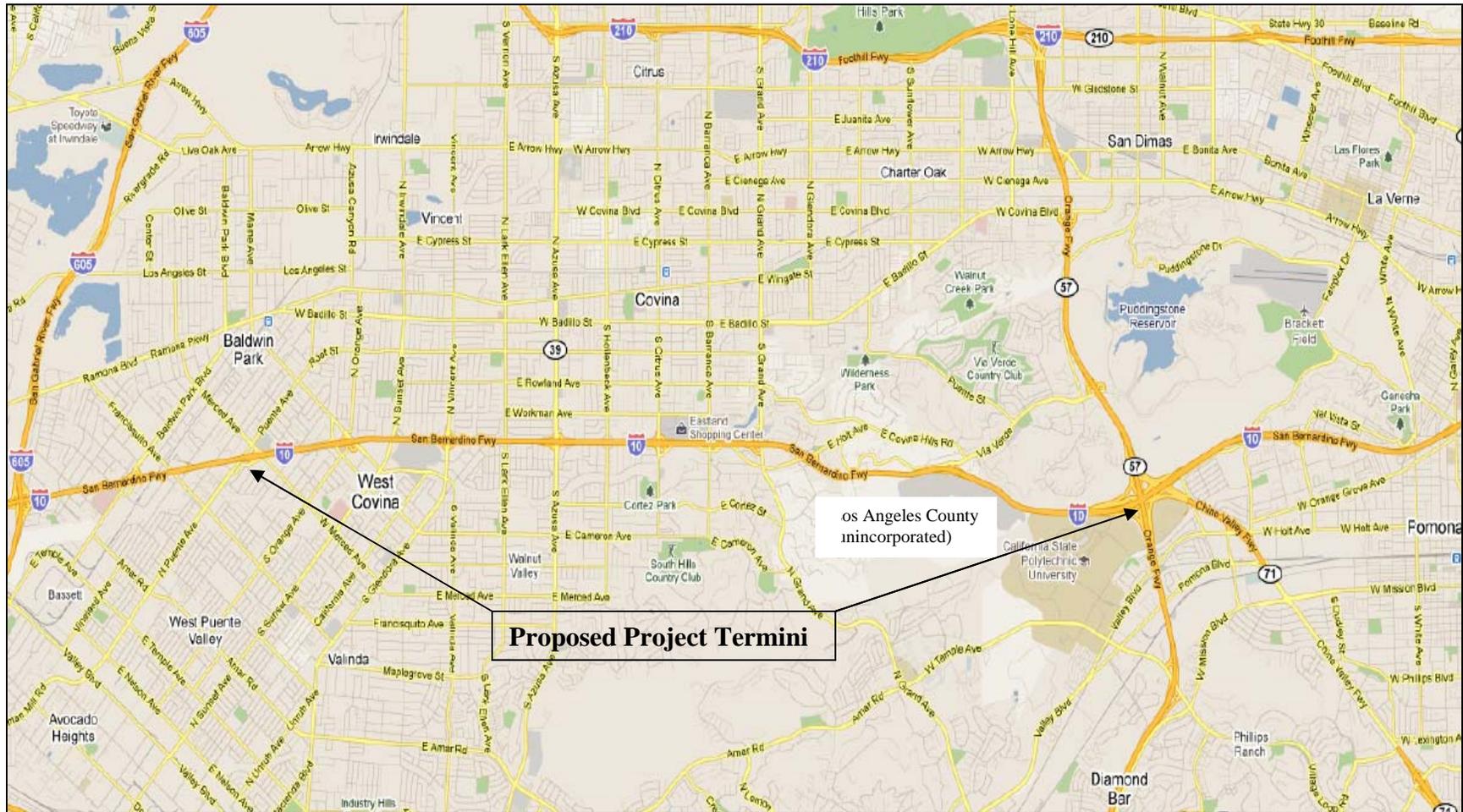
**Climate.** The climate in the proposed project area is considered Mediterranean with hot, dry summers and cooler, wet winters. Wind patterns in the area vary from season to season, with predominant westerly winds in the summer and northeasterly winds in the winter. During the late summer through the early fall, dry Santa Ana winds typically occur in southern California. Santa Ana winds are often associated with quickly spreading wildland fires in southern California. Most of the precipitation in the region occurs between November and April. Annual precipitation in the area averages approximately 18 inches. The mean annual maximum temperature in the proposed project area is approximately 77 degrees Fahrenheit (F), with July and August being the warmest months, averaging in the upper 80 degrees F. Winter mean annual minimum temperature is approximately 49 degrees F, with December and January averaging approximately 41 degrees F (WRCC, 2011).

**Landforms.** The topography is generally flat across the west part of the I-10 project study area between Puente and Grand avenues. East of Grand Avenue, the elevation rises, with grades of up to 5.5 percent, as the freeway traverses the west side of Kellogg Hill. Kellogg Hill is part of the San Jose Hills complex, which forms a natural physical boundary between the San Gabriel Valley to the west and the San Bernardino Valley to the east. The proposed project region drains westerly to the San Gabriel River via concrete-lined Big Dalton Wash and Walnut Creek.

**Biology.** Vegetation adjacent to I-10 is typical of developed urban areas, predominantly consisting of nonnative landscaping and ruderal species. Native species are found on the embankment south of I-10 and east of Grand Avenue. Animal species are also typical of urbanized areas in eastern Los Angeles County.

**Noise.** The dominant source of noise within the proposed project area is traffic on I-10. Vehicles using local arterial and frontage streets are also major generators of noise.

**Figure 2-1**  
**Local Jurisdictions within the Project Corridor**



Source: Google Maps

**Socioeconomic.** The year 2000 census population of the study area (block groups) is 49,931 persons, of which the largest individual racial group is Hispanic or Latino (of any race) at 46 percent. The second largest individual racial group is White at 30 percent, followed by Asian at 17 percent. The racial mix varies substantially within the study area from city to city. The western end of the project corridor consists of a largely Hispanic or Latino population, while in the eastern end there are high concentrations of White and Asian populations. Overall, the proposed project corridor consists of a variety of socioeconomic and multiethnic populations. Both lower and higher income, and ethnic minority and White populations live close to the I-10 corridor within the proposed project area.

A more detailed description of existing environmental conditions within the project area is provided in Chapter 3 under ‘Existing Conditions’ for each individual issue area heading. Chapter 3 includes a description of the applicable regulatory framework associated with each environmental issue, as applicable, and the existing environmental conditions against which the proposed project’s environmental impacts are to be measured.

### **2.1.2 Existing Transportation Facility**

I-10 extending east from Los Angeles, and along Garvey Avenue through the project corridor, is aligned along the historic “Ramona Expressway” alignment. The expressway was later improved and renamed “Ramona Parkway” in the mid-1940s. On July 15, 1952, the California Highway Commission adopted I-10 as a freeway. The first segment of the “Ramona Freeway” opened on November 16, 1954 (it was renamed the San Bernardino Freeway 1-week later), with a segment running 13.4 miles from Kellogg Hill in Pomona to Archibald Avenue in Ontario. The freeway to the west between El Monte and Covina was still being built, and work had not started east of Ontario.

I-10 became part of the Freeway & Expressway System in 1959 and is also part of the Interstate Highway System. The freeway is included in the State Interregional Road System and is further classified as a “High Emphasis” and “Gateway” route. The entire length of I-10 is included in the National Highway System, the Department of Defense Priority Network, and the Strategic Highway Corridor Network. The 1990 Federal Surface Transportation Assistance Act (STAA) identifies I-10 as a “National Network” route for STAA trucks ([www.cahighways.org](http://www.cahighways.org)).

As described in Chapter 1, I-10 currently operates as a four-lane freeway in each direction from the Puente Avenue interchange east to the Citrus Avenue interchange, with auxiliary lanes typically between on- and off-ramps. Going eastbound from Citrus Avenue to the SR 57/SR 71 interchange, the facility operates as a four-lane freeway with one auxiliary lane. In the westbound direction, I-10 operates in a similar fashion to the eastbound direction, with the exception of an additional fifth mixed-flow lane from Via Verde Street to Kellogg Drive. Ramp meters, a Transportation Management Plan (TMP) improvement, are provided on nearly all ramps along the subject corridor. Recurrent congestion occurs westbound in the

morning peak period and eastbound in the evening peak period. Most of the proposed project area currently operates at capacity in the morning and evening peak hours.

Caltrans recommends interchanges be spaced one mile apart in an urban setting to allow adequate distance for merging and diverging traffic. There are six interchanges within the proposed project area that are spaced 0.5 mile apart or less. This means that there is insufficient weaving length along portions of the subject freeway corridor. Combining overburdened traffic demands of the mainline freeway with numerous access points results in heavy congestion along this section of I-10 (Caltrans, 2009a).

### 2.1.3 Current HOV System

There are more than 425 miles of existing HOV lanes within the counties of Los Angeles, Orange, San Bernardino, and Riverside, as shown in Figure 2-2. Numerous additional lane-miles are either in the planning, design or construction stages of development.

The existing El Monte Busway, a separated HOV facility, extends east from Alameda Street in the Los Angeles Central Business District (CBD) to Baldwin Avenue in the city of El Monte. The segment of the El Monte Busway from Alameda Street to Interstate Route 710 (I-710) is located on the north side of I-10. The busway is in the I-10 median from I-710 to I-605. Construction of an easterly extension of the existing HOV facility in the I-10 median is currently (2011) in progress along a 2.3-mile-long stretch between I-605 to just west of Puente Avenue.

## 2.2 Area and Local Plans

As listed in Section 1.4.8, several state and regional transportation plans and programs apply to the project corridor. In addition, each affected jurisdiction has developed general plan documents that are intended to guide long-term physical development. State law requires that the general plan include the following elements at a minimum: land use, housing, circulation, noise, open space, conservation, and public safety.

### 2.2.1 Local Agency Plans

**City of Baldwin Park.** The City of Baldwin Park's General Plan 2020, approved in 2002, includes all seven required elements plus two elements for Urban Design and Economic Development. An Implementation Plan, adopted separately from the General Plan elements, was also approved to identify specific actions the City will undertake to implement goals and policies contained in the general plan. Only an approximate 0.25-mile-long stretch of the project corridor between approximately Puente and Merced avenues is included within Baldwin Park. Land uses in the freeway vicinity are primarily commercial establishments, including restaurant and motel uses.

**City of West Covina.** Adopted in 1985, the City of West Covina's general plan establishes standards for population density and the intensity of land use development. The general plan focuses nonresidential development in two major commercial cores: the CBD and at Eastland



designated for areas immediately adjacent to the city boundary, north of I-10, and generally east of Holt Avenue. Approximately 0.75-mile of freeway extends along the city's boundary. Existing land uses in Covina and north of I-10 consist mostly of single- and multi-family residential with limited commercial retail and a hotel use near Holt Avenue. South of I-10, there are no land uses under jurisdiction of the City of Covina.

**City of San Dimas.** The City of San Dimas last updated its general plan land use element in 1991. The land use element identifies the Via Verde interchange as a gateway to the city and recommends that this area be developed with unique landscaping and a city entry sign on public property to create a sense of identity. Approximately 2 miles of I-10 extends along the southern boundary of the city. Existing land uses north of I-10 are low-density residential, vacant, and open space. There is an existing park-and-ride facility on the north side of I-10 at Via Verde Street.

**City of Pomona.** While Pomona does not extend into the proposed project area, it is within the right of way (ROW) limits of the I-10/SR 57/SR 71 interchange. The 2007 Pomona general plan is focused on economic expansion via strategic development in downtown, commercial corridors, shopping centers, and freeway gateways. Because the interchange is Caltrans ROW, there are no existing or planned development projects in Pomona immediately adjacent to the project corridor. Existing land uses in Pomona nearest to the eastern project terminus are commercial, office, agricultural, and residential.

**Los Angeles County.** The County's general plan, adopted in 1980, serves as the long-range planning document to provide the framework for future development and resource conservation. The County is currently (2011) in the process of reviewing the 'Draft 2035 General Plan' update, with anticipated agency approval in 2012. The unincorporated "Walnut Islands" border the south side of the I-10 ROW for approximately 2.9 miles between West Covina and Pomona. Land uses along the project corridor in unincorporated Los Angeles County include Forest Lawn Memorial Park, a privately owned cemetery; Cal Poly Pomona; single-family (ranchette) residential uses at a maximum density of 1 unit per acre; and open space.

### 2.2.2 Other Applicable Plans

**California State Polytechnic University, Pomona Campus Plan.** In addition to local agency general plans, Cal Poly operates under a Campus Master Plan that was approved in July 2000. The plan aims to create a physical environment that fosters the university's educational mission of advancing learning and knowledge for students. Key principals of the Master Plan include (1) integrated land use enhancing an academic community, (2) college neighborhoods as an organizing unit, and (3) concentrated pedestrian campus surrounded by large open spaces. The campus borders the south I-10 ROW at the eastern end of the project corridor, between Forest Lawn Memorial Park and the I-10/SR 57/SR 71 interchange.

The university is currently in the process of preparing a Campus Master Plan revision. Figure 2-3 is a map of the proposed master plan facilities, as presented in the April 2011 Environmental Initial Study. The Master Plan is being proposed as both a vision and a program for meeting the university's future space and place needs. The proposed revision involves demolition or renovation of certain buildings, as well as construction of new buildings and facilities. Improvements to the circulation network in and around campus is planned, involving realignment of main roadways and improved bicycle and pedestrian linkages (Cal Poly Pomona, 2011).

**Figure 2-3**  
**Campus Master Plan Map, Cal Poly Pomona**



Source: CSU, 20

**CHAPTER 3**  
**ENVIRONMENTAL ANALYSIS**



### 3.0 Environmental Analysis

The California Environmental Quality Act (CEQA) requires Caltrans to identify each “significant effect on the environment” resulting from the project and ways to mitigate each significant effect. If the project may have a significant effect on any environmental resource, then an EIR must be prepared. Each and every significant effect on the environment must be disclosed in the EIR and mitigated if feasible. In addition, the CEQA Guidelines list a number of mandatory findings of significance, which also require the preparation of an EIR. This chapter discusses the effects of this project and CEQA significance.

As part of the scoping and environmental analysis conducted for the project, the following environmental issues were considered but no adverse impacts were identified. Consequently, there is no further discussion regarding these issues in this document.

**Forest Resources:** The subject I-10 corridor is within an urban area. No forest land, timberland, or timberland-zoned Timberland Production areas are located within the proposed project vicinity.

**Mineral Resources:** Based on review of General Plans for the jurisdictions through which I-10 passes, there are no known natural mineral resources or locally important mineral resource recovery sites in the I-10 project study area.

This page intentionally left blank.

### **3.1 Aesthetics and Visual Resources**

Aesthetics and visual resources are generally defined as the natural and built features of the landscape visible from public views that contribute to an area's visual quality. This section describes the existing visual environment and changes resulting from the proposed project. Information for this section was obtained from the *Visual Impact Assessment Report* (Caltrans, 1993a) and *Visual Impact Study* (Caltrans, 1995a).

The evaluation of visual resources in the context of environmental analysis typically addresses contrast between visible landscape elements. Collectively, these elements comprise the aesthetic environment, or landscape character. The landscape character is compared to the proposed project's visual qualities to determine the compatibility or contrast resulting from project buildout.

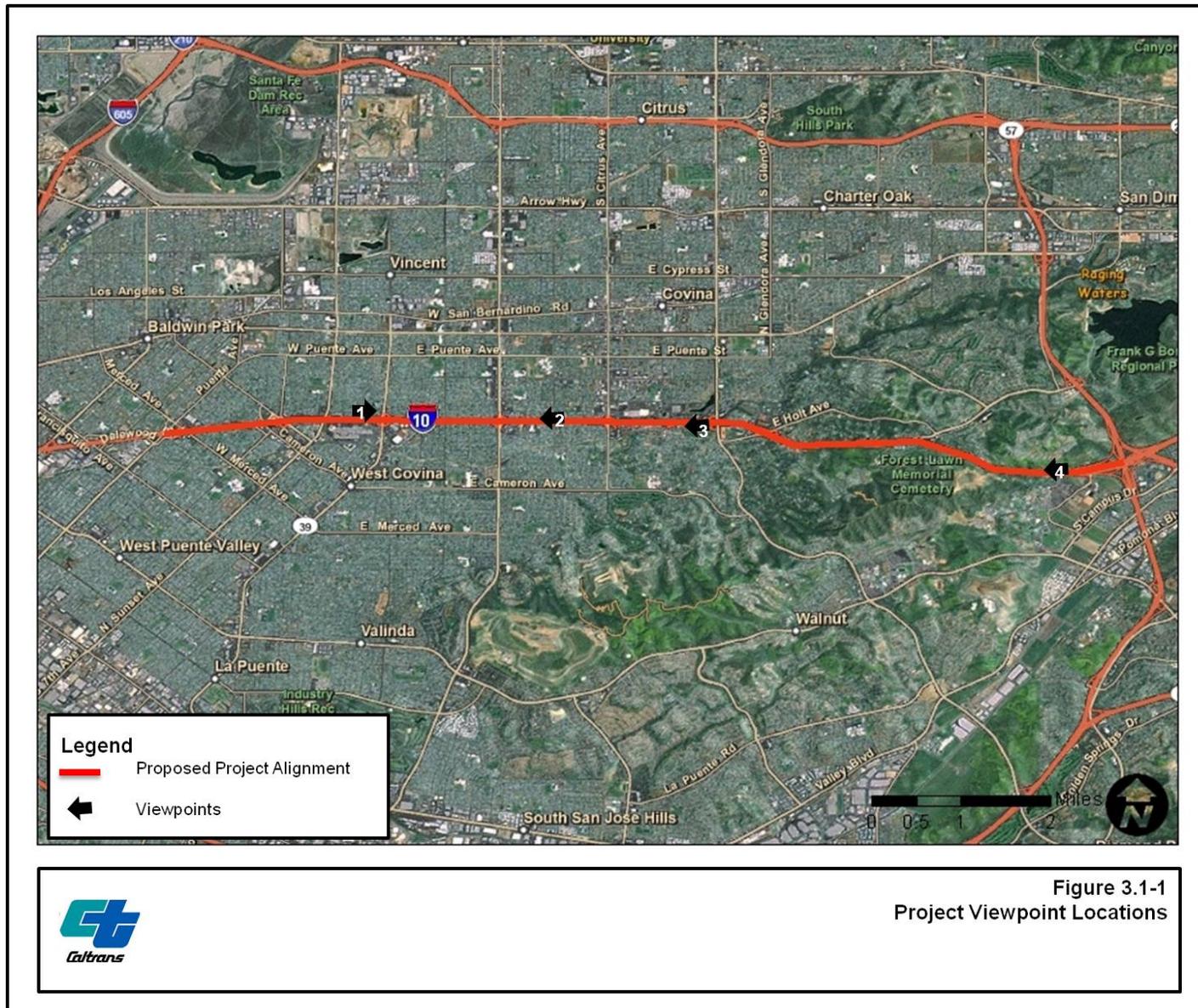
#### **3.1.1 Existing Conditions**

Evaluation of the existing visual quality was based upon field observations and documented with photographs and "street views" taken from key observer viewpoints using Google Maps (2011). The existing visual conditions reveal the visual experience of the adjacent land user and the highway user along the project area. Four observer viewpoints were selected to represent various conditions in the study area, as shown in Figure 3.1-1. Onsite photographs taken from these viewpoints are provided in Figures 3.1-2a and 3.1-2b.

##### **3.1.1.1 Project Setting**

A regional landscape defines those elements of the natural and built environment that together form a unique visual identity of a place or corridor. This regional landscape establishes the general visual environment of the project, but the specific visual environment upon which this assessment is focused is determined by defining the landscape units and project viewshed, which are discussed below.

The regional landscape of the project corridor is characterized by two identifying elements: the flat appearance of the foreground landscape and the steep, far-off view of the San Gabriel Mountains. Vegetation exists along the existing corridor in many locations, which is not unique to the I-10 project corridor; however, the freeway median is devoid of vegetation for the entire length of the proposed project. One additional element to be considered in the regional landscape is the smog that frequently develops in the area and obscures the views of the mountains, which influences the overall appearance of the regional landscape.





Viewpoint 1



Viewpoint 2

Figure 3.1-2a Project Viewpoints





Viewpoint 3



Viewpoint 4

Figure 3.1-2b Project Viewpoints



### 3.1.1.2 Project Viewshed

A viewshed is the area normally visible from an observer's viewpoint of location and is limited by the screening/obstruction effects of any vegetation or structures. The viewshed includes the locations of viewers likely to be affected by visual changes brought about by the project features.

For most of the proposed project, views from the cross streets into the corridor are generally located near the corridor, within approximately 0.25-mile, due to the relatively flat nature of the eastern San Gabriel Valley. The hillsides along the eastern end of the project corridor provide views looking down toward the freeway, as well as views of hills across the freeway. Areas where multi-story office and hotel buildings are located may have views farther out from the corridor. From within the corridor, views out are also generally limited to a short distance due to the flat ground plane and the proximity of buildings. In addition, existing soundwalls limit both the views and the viewshed into and out from the corridor.

### 3.1.1.3 Visual Character

The diversity of visual characteristics in the study area is comprised of the following land uses: commercial/light industrial; single-family, multi-family, and estate residential; cemetery; institutional; and open space. Urban development along the highway is visually dominant throughout the project area. The San Gabriel Mountains are visible from some freeway segments on clear days. These land uses afford a wide range of visual characteristics that can be described as urban, semi-urban, and disturbed inland foothills and valleys.

**Urban.** These areas are characterized by high-density development and structured (i.e., man-made) landscaping. Urban developments may be residential, commercial, industrial, or institutional.

**Semi-Urban.** These are areas of suburban development adjacent to existing roads and highways, and they include large single-family properties, cemetery, and open space. These uses are characterized by openness along the roadway and within the adjacent properties.

**Disturbed Inland Foothills and Valleys.** These are areas of hilly topography that have had their natural appearance disturbed by human activities. This disturbance is characterized by vegetative cover removal, grading activities, and installation of roadways, buildings, or utilities.

### 3.1.1.4 Observer Viewpoints

Four project corridor viewpoints were chosen to show the variable character of the site both within and adjacent to I-10.

**Viewpoint 1.** This view toward westbound I-10, to the east of Ellen Drive, shows a frontage road and vegetation-covered wall in the foreground with the tops of commercial buildings

providing the background. It received a medium-low visual quality score due to the lack of integration of the street and vegetation-covered wall.

**Viewpoint 2.** This view of westbound I-10 from South Garvey west of Baymar Avenue received a low visual quality rating because few trees dot the landscape, elements flow into one another, little coherent pattern, little integration with the natural environment, and lack of overall unity.

**Viewpoint 3.** This view of westbound I-10 at the Barranca Avenue overpass depicts commercial uses and other urban characteristics with light landscaping buffers. It received a medium-low visual quality score due to the lack of distinctive buildings and sparse landscaping.

**Viewpoint 4.** This view of westbound I-10 shows the Kellogg Hill area of disturbed inland foothills and valleys in the foreground and rural residential in the background. It received a medium visual quality rating due to the surrounding undeveloped hillsides.

### 3.1.1.5 Existing Viewer Groups, Exposure, and Awareness

**Freeway Travelers.** Along the I-10 corridor, thousands of travelers, including regular commuters, frequent travelers, occasional travelers, and tourists, traverse the project area in a typical day. Of these users, the daily commuter would have the greatest sensitivity to changes in the visual environment due in large part to daily exposure to the corridor. Other freeway users would have a decreasing exposure and knowledge of the previous visual environment; therefore, they would be expected to have a decreasing sensitivity to change. With congested traffic, the length of exposure increases – drivers have a longer time to focus attention on the highway elements, and passengers tend to have more time and a wider range of views than drivers.

**Community Residents.** Residents can be expected to have a high concern and a high degree of sensitivity to changes in the visual environment with regard to the project and its effect on views from their homes and neighborhoods. In addition, residents can be expected to have a concern about the views from the highway into their communities. In areas of adjoining cities and communities, there is often a desire to differentiate one community from the next, particularly along freeways that often serve as main entry points to a community.

**Business Owners, Employees, and Customers.** In general, this user group would be expected to have a low sensitivity to the changes in the visual environment. This group is more concerned with maintaining access to the business than the change in the visual environment; however, business owners are often concerned with the aesthetics of the project corridor and how that might reflect on the community.

**Local Street Users.** Local street users, including drivers, bicyclists, and pedestrians, have generally short-duration views into the corridor every day, mostly from the many cross streets over and under the corridor. Because the speed of travel of these viewer groups is

much slower than that of the highway traveler, they are expected to have a high to moderate sensitivity to changes in the visual environment, depending on their familiarity with the current views. Views into the project area can also be broken by vegetation, buildings, or fencing that limit some views or break up the panorama into intermittent views.

### **3.1.2 Regulatory Requirements**

The California Environmental Quality Act (CEQA) establishes that it is the policy of the state to take all action necessary to provide the people of the state “with...enjoyment of *aesthetic*, natural, scenic and historic environmental qualities.” (CA Public Resources Code Section 21001[b])

Urban Design and Open Space elements of the general plans for each jurisdiction were reviewed for regulatory requirements within the project area.

#### **3.1.2.1 City of Baldwin Park**

Relevant polices from Baldwin Park’s Open Space Element include:

- Policy 5.3: Maintain and conserve existing street trees, and require replacement where trees are removed.
- Policy 6.2: Buffer residential from nonresidential uses with aesthetically pleasing walls, landscaping, and/or fencing.

#### **3.1.2.2 County of Los Angeles**

Relevant policies from the County’s Open Space Element include:

- Policy 16: Protect the visual quality of scenic areas, including ridgelines and scenic views from public roads, trails, and key vantage points.
- Policy 35: Support preservation of heritage trees. Encourage tree planting programs to enhance the beauty of urban landscaping.

#### **3.1.2.3 City of San Dimas**

A relevant policy from San Dimas’ Open Space Element includes:

- Policy 5.1.2: Protect views and viewsheds of the foothills.

#### **3.1.2.4 City of Walnut**

A relevant policy from Walnut’s Environmental Resources Management Element includes:

- Policy 3: Protect scenic, historic, natural wildlife, archaeological, and cultural resources of this area.

#### **3.1.2.5 City of Pomona**

Relevant policies from Pomona’s Community Design Element includes:

- Policy 6-G-5: Promote attractive community character as viewed from public streets, while providing adequate buffer areas between homes and heavily traveled roads.
- Policy 6-P-11: Do not permit soundwalls or perimeter walls along major streets or corridors, except along freeways and railroad tracks. In all other instances, permit soundwalls only upon finding that alternative noise attenuation measures are not available.
- Policy 6-P-12: Provide a landscape buffer between public sidewalks and existing perimeter and soundwalls. Plant shrubs, turf, ground cover, and clinging vines within the landscaped area.
- Policy 6-P-19: Provide street trees on all public street frontages. Plant street trees linearly within planter strips between curb and sidewalk, with regular spacing that relates to tree canopy width. Coordinate street tree placement with utility placement, lighting, and curb cuts.
- Policy 6-G-42: Minimize the intrusion of I-10 and its interchange on the visual character and form of the City.
- Policy 6-P-118: Provide planting strips with large canopy trees between the road and sidewalk to buffer pedestrians from traffic and help define street space along residential and commercial streets. Install pedestrian amenities in the planting strip, such as street lighting, seating, open bus stop shelters, bicycle racks, and mailboxes.
- Policy 6-P-120: Work with Caltrans to improve landscaping along the I-10 freeway and interchanges, as well as state highways to minimize the visual and physical impact of these highways on neighborhood communities.
  - Recognize interstate off-ramps as important entrances to the City;
  - Establish a consistent scheme of colorful plantings and directional signage; and
  - Initiate or encourage Business Improvement Districts along state highways to improve pedestrian amenities and appearance.

Urban Design and Open Space General Plan elements were unavailable for online review for the cities of West Covina and Covina.

### **3.1.3 Significance Criteria**

Criteria for determining the significance of impacts related to aesthetics and visual resources are based on the CEQA Guidelines, Appendix G – Environmental Checklist. Impacts from the proposed project would be considered significant under the following circumstances:

**VIS-1:** Have a substantial adverse effect on a scenic vista.

**VIS-2:** Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway.

**VIS-3:** Substantially degrade the existing visual character or quality of the site and its surroundings.

**VIS-4:** Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area.

### **3.1.4 Impacts**

#### **3.1.4.1 No Project Alternative**

Activities that would occur under the No Project Alternative include routine maintenance of the project corridor area. The No Project Alternative would not include construction of HOV lanes within the project corridor; therefore, this alternative would not result in aesthetic and visual resource impacts.

#### **3.1.4.2 Proposed Project Alternative**

**Impact VIS-1: The proposed project would not have a substantial adverse effect on a scenic vista.**

There are distant scenic views of the San Gabriel Mountains from some vantage points along the proposed project alignment. These scenic views are currently degraded by the intervening urban environment, and any effect due to soundwalls would not be considered substantially adverse.

**Impact VIS-2: The proposed project would not substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway.**

I-10 is not designated as a state scenic highway within the proposed project area; therefore, the proposed project would not have any effect on scenic resources within a state-designated scenic highway. Furthermore, there are no heritage trees, large rock outcroppings, or historic buildings within the project corridor that would be affected by the proposed project.

**Impact VIS-3: The proposed project would not degrade the existing visual character or quality of the site and its surroundings.**

The visual impact of the proposed project is determined by assessing the visual resource change resulting from the project and predicting viewer response to that change. Visual resource change is the total change in visual character and visual quality. The first step in determining visual resource change is to assess the compatibility of the proposed project with the existing visual character of the landscape. The second step is to compare the visual quality of the existing resources with the projected visual quality after the project is constructed. The proposed visual quality described below assumes typical project components such as landscaping of disturbed areas and architectural detailing of all structural elements.

**Temporary.** Project construction would be multi-phased and would occur in different locations at different times. All construction activities, whether for facility demolition, roadway, or bridge and ramp work, would involve the use of a variety of construction equipment, stockpiling of soils and materials, and other visual signs of construction. While evidence of construction activity would be noticeable to motorists, area residents, and others in the project vicinity, such visual disruptions would be short term and are a common feature of the urban environment. Some construction would be accomplished at night. Project specifications would require the project contractor to direct artificial lighting onto the worksite while working in residential areas at night to minimize “spill-over” light or glare effects.

**Permanent.** The proposed project generally would neither substantially alter existing viewsheds, nor change the overall composition of the visual environment. With the exception of the Kellogg Hill viewshed (see Figure 3.1.2-b, Viewpoint 4), views from surrounding land uses are not generally oriented toward I-10. Activities associated with the proposed project that would affect the visual environment include:

- **Vegetation Removal** – Existing trees, shrubs, and grasses would be removed along the entire project corridor where required for construction improvements, including for construction of retaining and soundwalls. This would adversely affect the existing visual quality of the freeway; however, in some areas vegetation removal may open up views of the distant San Gabriel Mountains. The freeway median is currently paved, so there would be no effect along the center of the facility. This change would be most noticeable to motorists, and it would remain until new landscaping has time to mature.
- **HOV Lanes** – A new lane would be added in each direction within the current median of the freeway. The proposed project would result in a permanent change in the visual setting where the HOV lanes can be viewed from the foreground and the middle-ground distance zones in the vicinity of the Cal Poly Pomona campus. The addition of this lane would also require some widening to the outside of the freeway. The result would be a wider pavement section throughout the corridor. The widened pavement would be a noticeable feature for drivers in the corridor; however, much of this area is already paved, and although the pavement type would change from asphalt to concrete, it would not greatly alter the overall visual quality of the corridor.
- **Bridges** – The proposed project would require modifications to existing bridges and construction of retaining and soundwalls. Several bridges, undercrossings, and overcrossings would require widening or partial replacement to the outside, as described in Chapter 1. Given that the existing bridges were generally constructed without the design and aesthetic considerations usually applied to new projects, the new structure components should be more aesthetically pleasing than the bridge structures. The new bridges would likely maintain or increase the existing visual quality of the corridor.

- **Retaining Walls** – Retaining walls located within the interchange areas are associated with the outside edges of the ramps; therefore, they face outward from the corridor. Because the walls are relatively short and confined to ramp locations, they are expected to be noticeable, but they are not expected to affect the overall visual quality of the interchange area. At Cal Poly Pomona, retaining walls proposed to be constructed on the south side of I-10, between the University House parking lot and the Kellogg Drive off-ramp, would be visible from the campus. While mature vegetation exists between these viewer groups and the retaining walls, this change in the visual setting could constitute a moderate impact to some observers.
- **Soundwalls** – New soundwalls placed at various locations along both sides of the project corridor would affect existing views from the freeway toward surrounding urban areas. Existing distant views to the San Gabriel Mountains may be obstructed in areas where there are no existing soundwalls. In some areas, the proposed project would beneficially obstruct views of freeway travel lanes from surrounding residential properties.

Based on review of local planning policies with the various municipalities within the corridor, including Los Angeles County, viewers familiar with the area would have a moderate sensitivity to changes in the visual environment; however, as seen by many casual observers traveling I-10, the elements proposed by this project would not be unexpected within the freeway corridor.

The project's anticipated overall moderate visual change, combined with moderate viewer sensitivity level, would result in a moderate visual impact to the corridor.

The proposed project would include landscaping in the remaining available public ROW, consistent with Caltrans' existing procedures and standards regarding plant materials and placement. Local jurisdictions affected by the proposed project would be invited to work with Caltrans on the landscaping plans associated with construction of the HOV lanes.

Caltrans has an existing program to collect litter, replace landscaping, and clean graffiti within the Caltrans' ROW, which would continue during operation of the HOV lanes; therefore, the proposed project would not result in significant aesthetic impacts related to litter, degraded landscaping, and graffiti.

**Impact VIS-4: The proposed project would not create a new source of substantial light or glare that would adversely affect day or nighttime views in the area.**

**Temporary.** Some construction would be accomplished at night. Project specifications would require the project contractor to direct artificial lighting onto the worksite while working in residential areas at night to minimize "spill-over" light or glare effects.

**Permanent.** Existing light and glare sources in the I-10 project study area include lighting on the I-10 mainline and ramps, on area streets, in parking areas, and around existing land uses. Most of the study area is developed with urban uses, and there are no existing substantial adverse sources of light and glare. Existing shadow sources include structures such as residences, businesses, walls, and overcrossings. The existing visual quality in the study area is not high, and there are no sensitive land uses that would be adversely affected by light, glare, and/or shadow associated with the proposed project. The proposed project would not introduce permanent changes to this condition.

### 3.1.5 Mitigation Measures

To address the moderate visual impacts to the project area and the change of scale of the highway corridor visually within the community, the following mitigation is recommended.

**MM VA-1 (ref. to Impact VIS-3):** During the project design stage, architectural detailing will be applied to the retaining walls, including textures and patterns (see Figure 3.1-3).

**MM VA-2 (ref. to Impact VIS-3):** During the project design and construction stages, existing vegetation in the corridor will be saved and protected to the extent that is feasible.

**MM VA-3 (ref. to Impact VIS-3):** During the project design stage, and to the extent feasible, skyline trees will be included in the new plantings to replace those removed by construction.

No mitigation measures are required for impacts **VIS-1**, **VIS-2**, and **VIS-4**.

In addition to the above-mentioned mitigation measures, the following environmental commitments were made to the City of West Covina:

- Caltrans will design aesthetic themes on soundwalls and landscape;
- Caltrans will work with the City on its request for graffiti-prevention measures;
- Caltrans, when feasible, will arrange for vines on soundwalls;
- Caltrans will replace vegetation when feasible; and
- Caltrans, where reasonable and feasible, will replace trees within Caltrans ROW project limits in the City of West Covina.

An example of the median treatment proposed for the project is shown in Figure 3.1-3. This same pattern is currently being utilized in the construction of HOV lanes between I-605 and Puente Avenue. In this regard, the concrete barrier median will have a pattern simulating rock and mortar.

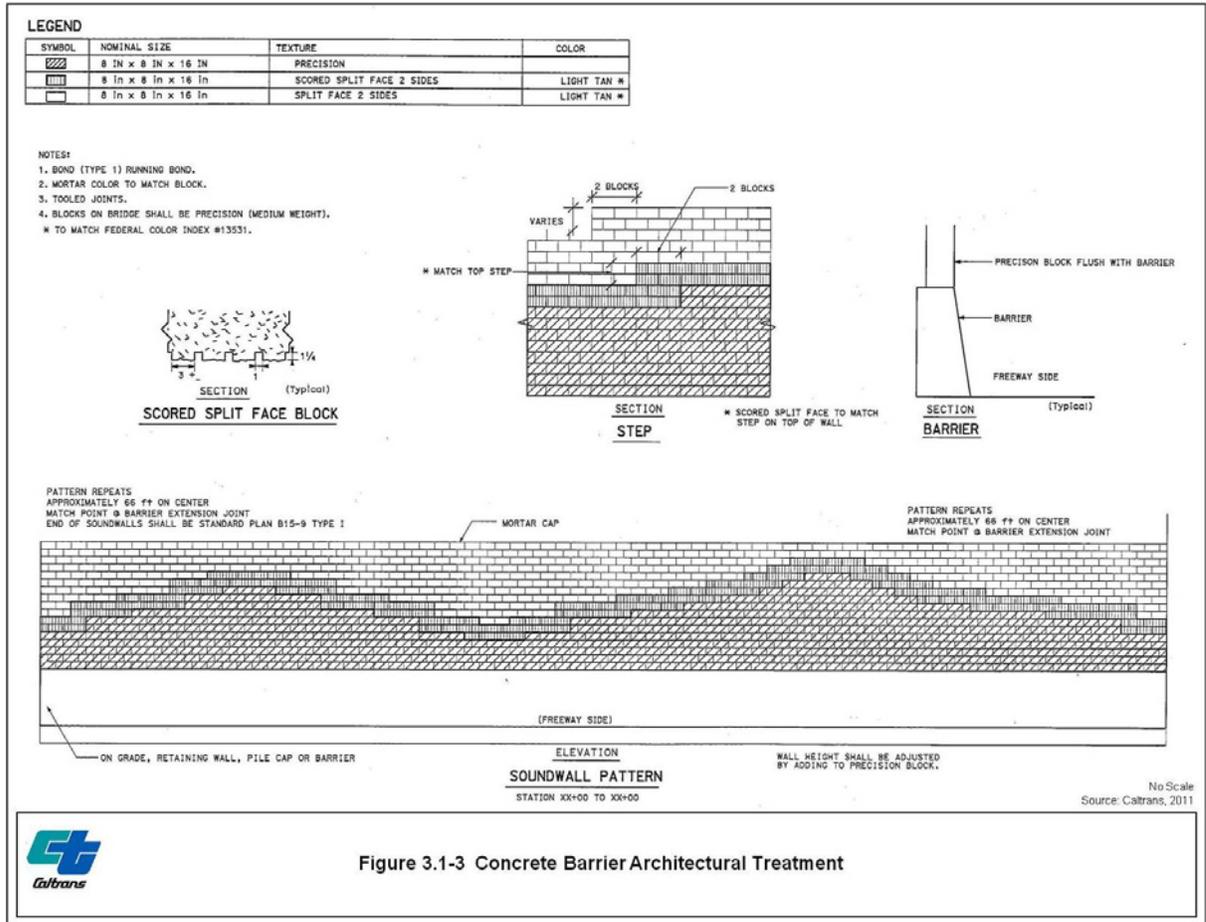


Figure 3.1-3 Concrete Barrier Architectural Treatment

### 3.1.6 Level of Significance after Mitigation

Less than significant impacts to visual and aesthetic resources are anticipated as a result of the proposed project.

This page intentionally left blank.

## 3.2 Traffic

This section has been prepared based on the following technical reports: *I-10 Proposed HOV Traffic Study from Puente Avenue Interchange (PM 33.4) to the SR-57/SR-71 Interchange (PM 42.4)* (Caltrans, 2009a); *Traffic Impact Analysis, Interstate Route 10 at Vincent Avenue* (Caltrans, 2011); and *Interstate 10 High Occupancy Vehicle Lane from Puente Avenue to the State Route 57/State Route 71/Interstate Route 210 Interchange, Non-Highway Transportation Technical Report* (Caltrans, 2008c). These technical reports analyzed traffic conditions for both the No Project and I-10 HOV Lane Alternatives.

### 3.2.1 Existing Conditions

This section addresses existing freeway, roadway, and nonmotorized travel conditions in the I-10 HOV Lane project corridor.

#### 3.2.1.1 Interstate 10

Figure 1-4 shows the existing lane configuration of I-10 between the Puente Avenue and SR57/SR71 interchanges. There are 12 freeway interchanges on I-10 in the project corridor. I-10 from the Puente Avenue interchange to the Citrus Avenue interchange currently operates as a four-lane freeway with auxiliary lanes typically between on- and off-ramps. Going eastward from the Citrus Avenue interchange to the SR 57/SR 71 interchange, I-10 operates as a four-lane freeway with one auxiliary lane. The westbound direction operates in a similar fashion to the eastbound direction, with the exception of an additional fifth mixed-flow lane from Via Verde Street to Kellogg Drive. See Section 1.3.2 of this EIR for more information about I-10 and connected transportation facilities in the region.

There are numerous ramps providing 50 merge/diverge points with I-10. Each merge/diverge point creates potential conflicts, resulting in congestion. Caltrans recommends interchanges every 1-mile in an urban setting. Ideally, 2,000 feet of weaving length are provided between points of conflict. In the project corridor, there are six interchanges spaced 0.5-mile apart or less. This means that there is insufficient weaving length in these sections of I-10. Combining the overburdened traffic demands of the mainline freeway with the numerous access points in a tight urban setting creates heavy congestion.

The 2008 average daily traffic (ADT) ranged from 222,400 vehicles per day (vpd) on I-10 between Grand and East Holt avenues to 240,300 vpd between Vincent and Azusa avenues. The westbound direction of I-10 experiences delay from recurrent congestion in the AM peak period of 6:00 a.m. to 9:00 a.m. The eastbound direction experiences delay in the PM peak period of 3:00 p.m. to 7:00 p.m. The typical AM peak hour is 7:00 to 8:00 while the typical PM peak hour is 4:30 to 5:30 (Caltrans, 2009).

This existing conditions analysis evaluates the current state of traffic operations along the I-10 corridor using Year 2008 traffic counts. The base year analysis does not account for the ongoing construction of HOV lanes on I-10 between I-605 and just west of Puente Avenue.

Traffic conditions are assessed by calculating the LOS on the freeway mainline (see Figure 1-3 for a definition of LOS criteria used for this proposed action). The existing conditions analysis results will be used to establish baseline conditions for the “proposed project” traffic impact assessment described below. This section summarizes the existing roadway circulation network, peak-hour traffic volumes, and service levels in the corridor.

Table 3.2-1 shows existing AM and PM peak-period traffic volumes on I-10 in the study area.

**Freeway Mainline LOS Conditions.** Under Existing Conditions (2008), the eastbound freeway mainline operates at LOS D or better during the AM peak hour and LOS E or worse during the PM peak hour. The I-10/SR 57 ramp operates at LOS C in the AM peak hour and LOS D in the PM peak hour.

For the westbound freeway mainline, the LOS analysis results indicate that most of the freeway segments currently (2008) operate at and unsatisfactory LOS of E to F. The SR 57/I-10 ramp operates at LOS D in both the AM and PM peak hours.

The peak-hour freeway segment LOSs are determined by the observed traffic volumes on the freeway and are not indicative of all the congested areas on the freeway. Congestion within the study area can also be attributed to heavy merging/weaving volumes, as described above, or by traffic queues backing up onto the freeway from congested off-ramps.

### 3.2.1.2 Local Roadways

I-10 within the project corridor is crossed by several local arterial and collector streets. Garvey Avenue North serves as a frontage road along the north side of freeway segments from Baldwin Park through West Covina into Covina. Garvey Avenue South serves the same purpose along much of the south side of freeway.

For the purpose of this Draft EIR, local street traffic conditions at the Vincent Avenue interchange were studied because the interchange would be reconfigured by the proposed project. Proposed improvements to the interchange are listed in Section 1.4.4 of this Draft EIR. This interchange, which most closely resembles a partial cloverleaf, has two intersections, as follows: Westbound I-10 Ramps at Vincent Avenue, with one single-lane exit off ramp and two on ramps, one for northbound Vincent Avenue traffic and the other for southbound traffic; and Eastbound I-10 Ramps at Vincent Avenue, with a two-lane exit either to the southbound Vincent Avenue ramp or to a northbound Vincent Avenue loop ramp and two on ramps, one a bypass loop ramp and the other a reverse curve alignment. All four interchange on-ramps are metered, and all but the ramp in the southeast quadrant have carpool lanes. Both intersections are currently operating at LOS D or better, which is considered satisfactory in the City of West Covina. (Caltrans, 2011)

**TABLE 3.2-1 AM/PM PEAK-PERIOD VOLUME SUMMARY AND ADT\* FOR EXISTING AND FUTURE CONDITIONS**

I-10 between:	Existing (2008) Conditions								Future (2035) Baseline Conditions							
	AM Peak		AM LOS*		PM Peak		PM LOS*		AM Peak		AM LOS*		PM Peak		PM LOS*	
	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB
Puente Avenue to Pacific Avenue	6,255	7,940	D	E	9,313	7,297	F0	D	7,433	8,211	E	F0	10,547	8,994	F1	F0
Pacific Avenue to Vincent Avenue	6,267	7,941	D	E	9,075	7,273	F0	D	7,472	8,016	E	E	10,014	8,796	F0	F0
Vincent Avenue to Azusa Avenue	6,488	8,234	D	F0	9,191	7,648	F0	E	7,653	8,109	E	F0	9,916	9,003	F0	F0
Azusa Avenue to Citrus Avenue	6,441	8,096	D	F0	8,760	7,476	F0	E	7,510	7,951	E	E	9,469	8,935	F0	F0
Citrus Avenue to Barranca Avenue	6,573	8,062	D	F0	8,725	7,541	F0	E	7,654	7,885	E	E	9,456	9,032	F0	F0
Barranca Avenue to Grand Avenue	6,656	8,095	D	F0	8,891	7,553	F0	E	7,926	7,907	E	E	9,036	9,413	F0	F0
Grand Avenue to Holt Avenue	6,297	7,947	D	E	8,970	7,372	F0	D	7,872	7,847	E	E	10,031	9,663	F1	F0
Holt Avenue to Via Verde	6,379	7,780	D	F0	8,828	7,379	F0	F0	7,996	7,866	E	F0	9,664	9,504	F0	F1
Via Verde Street to Kellogg Drive	6,218	8,087	D	F0	9,151	7,900	F0	E	8,289	8,169	F0	F0	10,029	10,342	F0	F1
Kellogg Drive to SR 57 off-ramp	5,760	6,114	D	D	8,678	5,977	F0	D	7,837	5,940	E	D	9,685	7,632	F0	F0
SR 57 off-ramp to SR 71	3,893	6,561	C	D	6,421	5,879	D	D	4,939	6,472	C	D	6,098	7,877	D	E

\* Peak Hour LOS (see Figure 1-3 for a definition of LOS criteria)

Source: Caltrans, 2009.

### 3.2.1.3 Nonmotorized Travel

Nonmotorized travel within the proposed project corridor is discussed in this section. ‘Nonmotorized’ as defined for this purpose includes public transit services and facilities.

**Park-and-Ride Lots.** Park-and-ride lots allow transit users to leave their cars close to their original destination to use another form of transportation for the remainder of their trip. Nearly all of the park-and-ride lots are offered to transit users at no cost. Existing park-and-ride lots within the vicinity of the project corridor are listed in Table 3.2-2.

**Metrolink.** The San Bernardino/Los Angeles Metrolink line runs roughly parallel to I-10 from downtown Los Angeles to the city of San Bernardino. It crosses under I-10 to the west of the Puente Avenue interchange and then runs north for much of the project area between West San Bernardino Road and West Cypress Street. As Metrolink nears SR 57, its course veers north of East Covina Boulevard, but still runs parallel to I-10.

**TABLE 3.2-2 EXISTING PARK-AND-RIDE LOTS IN PROPOSED PROJECT VICINITY**

Lot Owner	Location	Lot Characteristics	Estimated Weekday Utilization Percentage (2008)
Caltrans	718 S. Azusa Avenue, West Covina	Surface; 58 spaces	83
	437 W. San Bernardino Road, Covina	Surface; 10 spaces	100
	Via Verde Street at SR 57, San Dimas	Surface; 88 spaces	90
City of Baldwin Park	14800 Badillo Street, Baldwin Park	Surface; 50 spaces	25
	3825 Downing Avenue, Baldwin Park	Surface; Baldwin Park Metrolink Station; approximately 180 spaces	90
City of West Covina	1444 Garvey Avenue, West Covina	Parking structure; 300 spaces; portion leased by Foothill Transit	--
	1200 W. Covina Parkway, West Covina	Surface; 250 spaces operated by Foothill Transit	--
City of Covina	559 N. Citrus Avenue, Covina	Parking structure; Covina Metrolink Station; 655 spaces	80
	600 N. Citrus Avenue, Covina	Surface; 219 spaces	100
	124 E. College Street, Covina	Parking structure; Civic Center; 114 spaces	--
	250 E. San Bernardino Street, Covina	Surface; approximately 112 spaces	25
City of San Dimas	Via Verde at I-10, San Dimas	Surface; 239 spaces	90

Source: Caltrans, 2009a; Parsons.

Two Metrolink stations are located near the project corridor: Baldwin Park Station (3825 Downing Avenue) and Covina Station (600 North Citrus Avenue). As shown in Table 3.2-2, parking exists at these stations for Metrolink users. Some stations require a parking fee; Covina Metrolink Station offers passes at \$20.00 per month.

The Metrolink fare is based on the distance traveled. The public has the option of buying round-trip or one-way tickets. Discount rates are available for seniors, students, disabled, and special groups. A regular roundtrip fare is approximately \$14.50 from Los Angeles Union Station to Covina Station.

All Metrolink stations are served by numerous bus routes. Bicycles are also allowed on Metrolink trains (Metrolink, 2011).

**Transit Service.** Transit service is provided throughout the project limits by Foothill Transit, Metro, Go West, and Access Paratransit.

Foothill Transit. As a joint powers authority (JPA) between various public agencies in southern California, Foothill Transit provides bus service for the San Gabriel and Pomona valleys in Los Angeles County. Foothill Transit operates 13 lines within the subject freeway corridor and services points east as far as Claremont. These service routes include transfer stops at numerous park-and-ride lots and Metrolink stations. Foothill Transit lines typically offer several midday trips, whereas the Metro commuter routes operate only during the peak commute time periods. A ‘Silver Streak’ line runs 24 hours per day. Local adult fares are \$1.25 and regular Silver Streak fares are \$2.75 (Foothill Transit, 2011).

Los Angeles County Metropolitan Transportation Authority. Metro only operates commuter transit routes between Puente Avenue and the SR 57/SR 71 freeways. Two routes, M-194 and M-190, currently run from El Monte Station to Cal Poly Pomona. Metro operates the Silver Line for service between El Monte Station and downtown Los Angeles. Most buses accommodate bicycles through the use of bicycle racks on the front of the bus. Rates for tickets and passes vary according to distance traveled. Base fares on Metro buses are \$1.50 (Metro, 2011).

Go West. As a city of West Covina Metrolink shuttle service, Go West serves the city of West Covina and the Covina Metrolink station transit users. Three routes run within West Covina between Puente Avenue and Grand Avenue. Each route crosses I-10 at least once. One way fares on Go West are 50 cents (<http://www.westcovina.org/cityhall/rec/transit/>).

Access Paratransit. Access Paratransit provides services to people with disabilities who are unable to use public fixed-route transportation systems. Unlike Foothill Transit and Metro, Access Paratransit uses only small buses, minivans, or taxis; however, paratransit services are not required to be complimentary to commuter rail or bus services.

Unlike Foothill Transit and Metro, Access Paratransit trips are not provided on a republished routing map and do not follow standardized time tables. Trips are coordinated among users and provided on an as-needed basis. For trips up to 20 miles in length there is a fare of \$2.25. The fare is \$3.00 for trips farther than 20 miles (Access Paratransit, 2011).

**Bikeways.** Local streets within the project vicinity are used at any time for bicycle travel. Bicyclists may share the road with other motor vehicles, have their own exclusive lane of travel, or ride along separated and designated paths that are removed from the roadway. Bicycle paths, lanes, or routes according to the Caltrans Highway Design Manual, Chapter 10, are as follows:

- Class I Bikeway (Bike Path) – Provides a completely separated ROW for the exclusive use of bicycles and pedestrians with crossflow by motorists minimized
- Class II Bikeway (Bike Lane) – Provides a striped lane for one-way travel on a street or highway
- Class III Bikeway (Bike Route) – Provides shared use with pedestrian or motor vehicle traffic

The Mobility Element of the Los Angeles County General Plan contains a map of existing bikeways in the County of Los Angeles. Most of the bikeways in the proposed project area are located in West Covina and Covina (Los Angeles County, 2008).

While most of the bikeways in the proposed project area are Class III (Bike Routes), there are also many Class II bike lanes. Two of these cross I-10: at Sunset Avenue and Lark Ellen Avenue in West Covina. Another Class II bike lane terminates on the south side of I-10 at Hollenbeck Avenue in Covina. Several Class III bike routes traverse the streets in West Covina and Covina. One crosses I-10 at Cameron Avenue and another stops south of I-10 on Lark Ellen Avenue. Farther east, a Class III bike route runs along Via Verde Street from SR 57 to I-10, before terminating just north of I-10. The only Class I bike path within the proposed project area consists of a less than 3-mile path, with origins near the Westfield West Covina Mall.

The Los Angeles County General Plan Bikeway map also shows proposed bikeways. Proposed bikeways include many Class I bikeways intended to connect the existing bikeway system in the proposed project area. There are five locations where bikeways are proposed to cross I-10 in the study area. Currently (2011), these ‘paper’ routes are only policy recommendations.

The Los Angeles County General Plan proposes two Class III bike routes that would cross I-10 in Baldwin Park. In addition, one proposed Class I bike path would cross I-10 in Baldwin Park and one in Covina (Los Angeles County, 2008).

Metro’s 2008 Draft LRTP for the region was reviewed for future bikeway development. It identifies the purpose of the Draft 2008 Plan to help implement the 2006 Metro Board-adopted Bicycle Transportation Strategic Plan. A priority of the Strategic Plan is to identify bikeways in relation to transit priorities. Although no specific future projects are identified, the plan introduces bicycle planning policies that encourage “arterial and parallel corridor improvement projects to include bicycle facilities” (Metro, 2006).

SCAG's RTP includes a separate report called the *Non-Motorized Transportation Report*, which serves as a technical and policy guide for the development and maintenance of nonmotorized transportation modes, particularly emphasizing bicycling and walking as alternative modes of transportation (SCAG, 2008). Policy highlights within the report include:

- Decrease bicyclist and pedestrian fatalities and injuries;
- Increase accommodation and planning for bicyclists and pedestrians;
- Increase bicycle and pedestrian use in the SCAG region as an alternative to vehicle trips;
- Produce a comprehensive regional nonmotorized plan; and
- Encourage development of local nonmotorized plans.

Some jurisdictions traversed by the project corridor either have nonmotorized policies or a component in another plan encouraging the use of nonmotorized modes of transportation.

**Pedestrian Paths.** Sidewalks and over and undercrossings are the only pedestrian paths located within the study area. The Mobility Element of the Los Angeles County General Plan also outlines design guidelines and other ways to improve the pedestrian experience throughout Los Angeles County (Los Angeles County, 2008).

The *Non-Motorized Transportation Report* from SCAG's RTP describes its policy-driven commitment to nonmotorized modes of transportation, including pedestrian paths.

### **3.2.2 Regulatory Requirements**

Caltrans, as assigned by FHWA, directs that full consideration be given to the safe accommodation of pedestrians and bicyclists during the development of federal-aid highway projects (see 23 CFR 652). It further directs that the special needs of the elderly and the disabled must be considered in all federal-aid projects that include pedestrian facilities. When current or anticipated pedestrian and/or bicycle traffic presents a potential conflict with motor vehicle traffic, every effort must be made to minimize the detrimental effects on all highway users who share the facility.

Caltrans is committed to implementing the 1990 Americans with Disabilities Act (ADA) by building transportation facilities that provide equal access for all persons. The same degree of convenience, accessibility, and safety available to the general public will be provided to persons with disabilities.

### **3.2.3 Significance Criteria**

Criteria for determining the significance of impacts related to transportation/traffic are based on the CEQA Guidelines, Appendix G – Environmental Checklist. Impacts considered significant under the proposed project would:

**TRAF-1:** Conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation, including mass transit and nonmotorized travel and relevant components of the circulation system including, but not limited to, intersections, streets, highways, freeways, pedestrian and bicycle paths, and mass transit.

**TRAF-2:** Conflict with an applicable congestion management program (CMP) including, but not limited to, LOS standards and travel demand measures, or other standards established by the county congestion management agency (CMA) for designated roads or highways.

**TRAF-3:** Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).

**TRAF-4:** Result in inadequate emergency access.

**TRAF-5:** Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities.

### **3.2.4 Impacts**

#### **3.2.4.1 No Project Alternative**

The No Project Alternative would not include construction or operation of HOV lanes within the subject corridor. Activities that would occur under the No Project Alternative include routine maintenance of the freeway and future mainline and interchange improvement projects as they become programmed.

The corridor would continue to be maintained as is, with a gap between HOV lanes currently operating both to the east and west of the proposed project corridor. It should be noted, however, that the segment of I-10 extending east from the I-605 interchange to Puente Avenue is currently in construction. When completed, the gap would be reduced to 9 miles in length. This alternative also assumes no improvements would be made to local streets.

The future operations of I-10 within the study limits would degrade with the No Project Alternative. Worsening congestion runs counter to the planning goals of Caltrans and SCAG. Compared with the Proposed Project Alternative, a higher expected accident rate is forecast for the No Project Alternative due to greater congestion in both the Opening and Horizon years. Unmitigated congestion in the no project condition would force more trips to local arterials, worsening congestion on the freeway and the local arterial system, thus limiting the total growth of traffic volume. With this scenario, existing nonhighway modes of transportation would need to be increased or proposed modes implemented to mitigate the worsening congestion.

### 3.2.4.2 Proposed Project Alternative

**Impact TRAF-1:** The proposed project would not conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation, including mass transit and nonmotorized travel and relevant components of the circulation system including, but not limited to, intersections, streets, highways, freeways, pedestrian and bicycle paths, and mass transit.

**Federal Agency Review.** FHWA is the reviewer of record for project design and funding phases of the improvements. For the I-10 HOV Lane Project to be approved by FHWA, it must be part of the current RTP. The 2008 final RTP lists the project as two HOV segments, identified as LA000548 and LA0B875.

**Regional Agencies.** SCAG's RTP establishes overall long-term mobility policies for the movement of people and goods, including congestion-relief strategies for all regionally significant facilities and activities (i.e., projects and programs). To meet the federal Congestion Management Process requirements, SCAG and designated county CMAAs have come together to develop CMPs for the region. The efforts of each CMAA have been brought together and integrated into the SCAG regional congestion management process. All county CMPs share the same goal of reducing congestion and applying congestion-relief strategies. Under state law, the CMP projects must be incorporated into the RTIP to receive federal and state funds (SCAG, 2008).

As the CMAA for the project area, Metro has prepared the 2004 CMP for Los Angeles County. It is noted in the Los Angeles County CMP that the focus has shifted from building new freeways to making more efficient use of the existing freeway system through an extensive program of adding HOV lanes. The CMP notes that "carpool lanes make more efficient use of already over-crowded freeways and are critical to maintaining mobility" (Metro, 2004). By closing a 9-mile gap between existing HOV lanes, the proposed project would fulfill and be consistent with the 2004 CMP for Los Angeles County.

**Local Agencies.** Consistency of the proposed project with local general plan circulation element policies is discussed in Section 3.10 of this Draft EIR. The following is a summary of this review, by jurisdiction:

- *City of Baldwin Park.* The City's General Plan Circulation Element contains provisions encouraging direct coordination with Caltrans to improve I-10.
- *City of West Covina.* General Plan policies relevant to the proposed project emphasize provision of a safe and efficient means of circulation.
- *City of Covina.* General Plan policies relevant to the proposed project emphasize provision of sufficient public facilities and services.

- *City of San Dimas.* The General Plan includes a circulation provision with the objective to increase vehicle occupancy rates.
- *City of Walnut.* There are no Circulation Element policies relevant to the proposed project.
- *City of Pomona.* The General Plan includes circulation provisions to reduce single-occupancy vehicle travel and manage congestion on nearby freeways.

As an I-10 improvement activity, the proposed project would be consistent with general plan circulation element policies for each of the above jurisdictions, because it would increase the person-carrying capacity and improve the LOS of the freeway.

**Impact TRAF-2: The proposed project would not conflict with an applicable CMP including, but not limited to, LOS standards and travel demand measures, or other standards established by the county CMA for designated roads or highways.**

See response to Impact TRAF-1 with regard to the proposed project's operational consistency with the local CMP.

**Temporary Impacts.** During construction, motorists traveling in the immediate vicinity of street, ramp, and lane closures would at times experience some inconvenience from temporary traffic congestion. These temporary impacts to the traveling public would be reduced through the following approach, which would become part of the proposed project.

- **Construction Staging:** As described in the two Project Reports for the proposed project, construction would be conducted in stages. Specific construction staging requirements would be defined during the final design process, and an actual construction staging plan would be developed by the contractor. Each construction stage would maintain the same number of traveled lanes for the mainline.
- **Bridge and Ramp Construction:** Movements at each of the bridge interchanges during construction would be staged and accommodated either by use of detours or temporary ramps. Freeway lane, ramp, or local street closures during bridge construction would occur during nighttime hours. Adjacent bridges would not be reconstructed concurrently to ease the increased traffic congestion that may impact local residents and the business community.
- **Traffic Management:** In accordance with Deputy Directive 60 (DD-60), a TMP<sup>1</sup> would be prepared and implemented to help minimize motorist delays during

---

<sup>1</sup> "A TMP, when implemented, results in minimized project-related traffic delay and accidents by the effective application of traditional traffic mitigation strategies and an innovative combination of public and motorist information, demand management, incident management, system management, alternate route strategies, construction strategies, or other strategies." (Source: DD-60)

construction. Approval of the TMP involves extensive coordination with managers of other concurrent projects in the area, particularly along other segments of I-10 in the vicinity.

- **Local Street Impacts:** While there would be temporary lane closures, it is anticipated that full local street closures during daytime hours should not be required during construction. Access to businesses and driveways would remain open at all times during the construction period.
- **Coordination:** All congestion-related activities would be coordinated with Metro, Foothill Transit, Metrolink, Access Services, major employers, and emergency service providers. During construction, motorists would be encouraged to make use of existing transit systems.

**Permanent Impacts.** Caltrans is implementing its *2009 HOV Business Plan* to encourage the development and construction of HOV projects as a congestion management alternative to adding general purpose lanes. The I-10 corridor has been highlighted in the *Business Plan* as a route that would benefit from a complete HOV system.

Peak-Period Volumes. Peak-period volumes were gathered for the Existing Year (2008) and generated for the Opening and Horizon years. The SCAG model was interpolated to base year 2008 and normalized to match Caltrans data (from Traffic Data Branch) at logical points for year 2008 data. Forecasted data was obtained from SCAG for the years 2015 and 2035, including modeling data for the project alternatives. In coordination with SCAG staff, computer model runs were executed by retrieving pertinent data, socioeconomic data preparation, network preparation, preparation of trip tables, and base year model validation.

Model results indicate the proposed project would generate greater peak-period volumes in the Opening (2015) and Horizon (2035) years compared to the No Project Alternative. Despite existing congestion, there is reserve capacity in the freeway to accommodate minor traffic growth.

Persons Moved per Peak Period – Existing and Projected. The Proposed Project Alternative is predicted to move more people than the No Project Alternative, which shows little appreciable increase in persons moved. To calculate the number of persons moved per peak period, the vehicle occupancy distribution for existing volumes was estimated and multiplied per peak-period volume. HOV lane vehicle occupancy distribution was estimated from a comparison of existing similar nonstandard HOV freeways statewide.

Table 3.2-3 shows the projected occupancy distribution of persons per vehicle:

**TABLE 3.2-3 OCCUPANCY DISTRIBUTION (PERSONS/VEHICLE)**

Project Alternatives	AM Peak Hour	PM Peak Hour
<b>No Project Mixed Flow</b>		
Mixed Flow Lanes	1.11	1.15
<b>Proposed Nonstandard HOV</b>		
Mixed Flow Lanes	1.05	1.09
HOV Lanes (2+)	2.24	2.36

Source: Caltrans, 2009a.

Peak-Hour Volumes (PHV) and LOS<sup>2</sup>. As shown in Table 3.2-1, the proposed project would also improve the current LOS within the project corridor. The combination of mixed-flow and HOV lanes under this alternative would operate better than the mixed-flow-only lanes under the No Project Alternative. This is due in part to the reduced volumes in the Proposed Project Alternative's mixed-flow lanes as a result of higher HOV lane utilization. Contrarily, the No Project Alternative require greater utilization of the mixed-flow lanes, compounding existing congestion problems, and resulting in continued, ongoing unacceptable LOS for the freeway segment.

Vincent Avenue Interchange. For the purpose of this Draft EIR, a network was established consisting of the aforementioned two intersections, from the eastbound I-10 ramps at Vincent Avenue through its intersection with Plaza Drive/Lakes Drive in the City of West Covina. The operations of this network were analyzed for the PM peak hour, which represented the worst case scenario for Buildout (2015) and Future (2035) conditions using Synchro/Simtraffic (Version 5.0).

Analysis results, shown in Table 3.2-4, indicate that the eastbound I-10 ramps intersection would operate at an unsatisfactory LOS E in 2015. In this regard, the movement from northbound Vincent Avenue to the eastbound I-10 on-ramp is the primary area of need. The shared through and right turn lane may be a contributing factor, as vehicles intending to conduct a through movement in the shared lane may potentially impact the capacity of right turn movements to the on-ramp. The proposed realignment and increased capacity of the eastbound I-10 on-ramp from northbound Vincent Avenue, coupled with the signalization of

<sup>2</sup> LOS analysis was conducted using the HCM methods for freeway segments. Mixed-flow, HOV, and auxiliary lanes were analyzed with the applicable factors set forth in the HCM. The LOS evaluations are based on free-flow traffic conditions. When v/c ratios approach or exceed a value of 1.0, traffic is considered to be in nonfree-flow conditions (i.e., LOS F congestion). LOS ratings based on v/c ratios greater than 1.0 are of limited value, as congested traffic flows are unstable and result in highly variable LOS ratings from day to day.

**TABLE 3.2-4 PROJECTED VINCENT AVENUE LOS FOR BUILDOUT AND (2015) AND FUTURE (2030) CONDITIONS**

Location	Leg	Delay (Sec.)	LOS
<b>Buildout Conditions (2015) - Intersection</b>			
EB I-10 Ramps at Vincent Avenue	--	64.6	<b>E</b>
Vincent Avenue at Plaza Drive / Lakes Drive	--	30.3	<b>C</b>
<b>Buildout Conditions (2015) - Approach</b>			
EB I-10 Ramps at Vincent Avenue	EB I-10 Off-ramp	16.3	<b>B</b>
	NB Vincent Avenue	134.3	<b>F</b>
	SB Vincent Avenue	11.8	<b>B</b>
Vincent Avenue at Plaza Drive / Lakes Drive	EB Plaza Drive	34.6	<b>C</b>
	NB Vincent Avenue	31.3	<b>C</b>
	SB Vincent Avenue	26.0	<b>C</b>
	WB Lakes Drive	40.9	<b>D</b>
<b>Future Conditions (2030) - Intersection</b>			
EB I-10 Ramps at Vincent Avenue	--	84.3	<b>F</b>
Vincent Avenue at Plaza Drive / Lakes Drive	--	46.8	<b>D</b>
<b>Future Conditions (2030) - Approach</b>			
EB I-10 Ramps at Vincent Avenue	EB I-10 Off-ramp	71.2	<b>E</b>
	NB Vincent Avenue	144.6	<b>F</b>
	SB Vincent Avenue	24.3	<b>C</b>
Vincent Avenue at Plaza Drive / Lakes Drive	EB Plaza Drive	61.1	<b>E</b>
	NB Vincent Avenue	61.6	<b>E</b>
	SB Vincent Avenue	28.2	<b>C</b>
	WB Lakes Drive	59.2	<b>E</b>
Source: Caltrans, 2011l.			

the right turn movements, appears to offset the queuing and spillback issues experienced under existing conditions.

The same intersection is projected to operate at LOS F in 2030. At this intersection, the right turn demand for the eastbound I-10 off-ramp is nearly double that of left turn movements. The northbound Vincent Avenue approach is hindered by the proposed signalization plus the lack of capacity for the right turn movement to the eastbound I-10 on-ramp. The shared through/right lane at this approach may impact the capacity of right turn movements. An increase in capacity at this approach may be appropriate mitigation.

While the intersection of Vincent Avenue and Plaza / Lakes Drive, as a whole, would operate at a satisfactory LOS in 2030, the north, east and west approaches would operate at an

unsatisfactory LOS E. The northbound Vincent Avenue approach experiences saturated conditions, which impacts left turn movements at certain intervals with queuing beyond the combination of available storage and deceleration length provided. Modifications in lane designation (i.e., convert shared through / right lane to exclusive through) may be a potential countermeasure to further improve operations at this approach and the intersection. (Caltrans, 2011)

**Impact TRAF-3: The proposed project would not substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).**

**Nonstandard Design Features.** The existing freeway facility has nonstandard design features, some of which would be corrected by the proposed project. For example, several existing on- and off-ramps have nonstandard radius curves and short sight distances that result in lower design speeds. On-line bus turnout facilities within the local access interchanges also have nonstandard geometrics and lower design speeds (Caltrans, 2002e). When completing substantial modifications to particular areas within the proposed project limits, every effort will be made to ensure the design meets current standards (Caltrans, 1994).

As stated in Chapter 1, the proposed project would mainly involve use of standard design features; however, the use of some nonstandard design features would be applied, largely to minimize the need for substantial ROW property acquisition. These features include a nonstandard 8-foot-wide inside shoulder west of Holt Avenue and solid double line striping in lieu of an HOV buffer for the entire corridor; and a reduced-width CHP enforcement area shoulder between West Covina Parkway and Vincent Avenue (3.3 feet versus 9.8 feet standard). These design features have been reviewed and approved under Caltrans' established internal procedures, as described in the Project Development Procedures Manual, Chapter 21. Caltrans does not approve any nonstandard designs that could adversely affect public safety.

**Accidents Per MVM.** Accident conditions on I-10 within the project corridor are described in Section 1.2.2 of this Draft EIR. Most of the recorded accidents for this segment of I-10 have been sideswipes, rear-ends, and broadsides. These types of accidents are usually associated with end-of-queue or stop-and-go conditions, which are typical on this segment of I-10.

Existing accident rates per MVM are shown in Table 3.2-5. It is anticipated that the existing accident rates would decrease after implementation of the proposed project. The addition of median HOV lanes would result in reduced congestion, which is anticipated to lead to a reduction in the types of accidents currently occurring on this section of I-10.

**TABLE 3.2-5 EXISTING ACCIDENT RATES PER MVM\***

Corridor (MP)	Direction	AM Peak Hour	PM Peak Hour
MP 33.4 to 42.4	East	0.81	1.05
	West	1.63	1.05

\*Average 36-month rate from 2005-2007.

Source: Caltrans, 2009a.

**Impact TRAF-4: The proposed project may result in inadequate emergency access.**

The proposed project would involve construction that could contribute to short-term impacts to fire protection and emergency services due to delayed response times. This potential impact would be minimized by implementation of a TMP, as required by Caltrans, and described below to contain access routes and detour plans to be implemented during construction. The TMP should be reviewed and approved by the County Fire Department and any potentially affected fire or law enforcement agency; therefore, construction-related traffic impacts would not cause an adverse effect to public and emergency services. Minimization measure PS-1 will be implemented to further minimize impacts.

**Impact TRAF-5: The proposed project would not conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities.**

Potential project impacts are discussed below for park-and-ride lots, passenger rail, transit service, bikeways, and pedestrian paths.

**Park-and-Ride Lots.** One park-and-ride lot would experience minor temporary construction impacts as a result of the proposed project. The lot located on the north side of I-10 at Via Verde Street in San Dimas may be used to accommodate 5- to 10-foot-wide TCEs along the I-10 ROW. Because the parking spaces are located farther than 10 feet from the ROW, landscaped slopes would be the only component of the park-and-ride-lot that would be affected by construction; therefore, temporary use of the park-and-ride lot would not be a significant impact because it would not result in any loss of parking.

**Metrolink.** A Metrolink line runs roughly parallel to I-10 between the city of San Bernardino and downtown Los Angeles. There are no railroad crossings within the project area (Caltrans 1994, 2002); however, the railroad tracks do cross Francisquito Avenue near the western project terminus. The proposed project would therefore not result in any temporary or permanent impacts to existing Metrolink stations or passenger service.

**Transit Service.** Project impacts to transit service are expected to occur during construction, as described below; however, long-term transit service benefits are expected after the HOV lanes are operational.

Within the project corridor, there are several street undercrossings and one overcrossing used by local transit service providers. The proposed project would not eliminate any of these access points. Several of these crossings would be widened as part of the proposed project. The local streets would be affected by the erection and removal of falsework. These construction activities may be performed at night, if warranted, when traffic volumes are lower.

Local streets adjacent to I-10, including but not limited to, Garvey Avenue, would experience construction activities. Shoulder or lane widths on local streets may be reduced to allow work within the construction zone to be safely performed, potentially resulting in congestion. The affected local streets are identified in Chapter 1. The duration and effect of temporary delays would vary depending upon the extent of work required, and traffic conditions on the affected street segment at any given time. Nighttime work may be required to avoid peak congestion periods. The aforementioned TMP would be prepared to minimize the effects of temporary congestion caused by work activities.

Foothill Transit and Metro provide local and commuter transportation services by entering I-10 at several ramp locations and traveling on I-10 to and from downtown Los Angeles. During construction work on the I-10 mainline, lane widths may be reduced and shoulders eliminated. Congestion on I-10 is anticipated to increase during construction in the AM and PM peak periods. This would result in some transit service delays and may have an effect on the scheduling of transit operations.

Any connector or ramp closures for one or more days during construction would temporarily impact transit operations. During the closure, access to I-10 would be relocated to another connector or ramp. The additional time required to travel on local streets to the next available entrance point would delay transit service. Connector or ramp closures would also increase the severity of congestion to the immediate adjacent connector or ramp, which would also add delay to transit service.

It is reasonable to assume that transit service may be temporarily delayed during construction by more than 10 minutes by the combined impact of reduced lane widths on local streets, reduced lane widths on I-10, and periodic ramp and local street closures. Mitigation is required to reduce construction impacts to a level of insignificance.

**Bikeways.** All existing bicycle and pedestrian access on the local roads would be maintained throughout the construction period, except during critical short-term construction activities requiring closure to perform the work or for safety reasons; however, most of these street closures are anticipated during nonpeak hours and should not affect most bicycle traffic. No bicycle paths would be affected as a result of this project during construction nor once the project is completed. Maintaining safe bicycle access at all times through the proposed project work zones would be addressed in the TMP.

**Pedestrian Paths.** While operation of the proposed project would not affect pedestrian paths or access, there would be some disruptions during construction. During construction, pedestrian access on local streets may be temporarily closed, requiring detour of pedestrian traffic to the other side of the street or via alternative route. If required, street closures would likely be scheduled to occur during nonpeak hours to minimize the effect on pedestrian traffic. Maintaining safe pedestrian access at all times through the project corridor would be addressed in the TMP. With implementation of a TMP, proposed project construction activities should not result in any significant impacts to pedestrians.

### **3.2.5 Mitigation Measures**

No mitigation measures are required; however, the following minimization measures are proposed:

- A TMP will be prepared to offset the effects of traffic congestion and access during construction on the freeway, ramps, and local streets. In addition to the standard requirements of a TMP, special focus will be placed on improving transit services during construction, as well as traffic incident management. Reducing the frequency of incidents, detection time, response time, and clearance time will all be addressed in the TMP. The TMP will include a public awareness program, including informational sources such as radio, Caltrans overhead changeable message board, and Internet. Some best practices to be considered include:
  - Designated towing services for keeping the work zone free of disabled vehicles;
  - Contractor-provided 24-hour-per-day monitoring of traffic control devices;
  - Establishing proper communication channels with “first responder” agencies; and
  - Providing safe pullout locations for disabled vehicles.
- Area residents will be regularly informed through public outreach of proposed project development and construction plans prior to and during the construction period so that they are aware of the construction timing, traffic/transit detour plans, and lane/road closures.
- At the northbound Vincent Avenue approach to eastbound I-10 on-ramp, modify the existing shared (through/right) lane to an exclusive through lane and add an exclusive full right turn lane.
- Increase the capacity of the eastbound I-10 on-ramp from northbound Vincent Avenue through the addition of a lane and the relocation of the proposed ramp meter approximately 250 feet downstream.

- Caltrans will periodically coordinate with the transit companies to discuss changes in the construction operations and potential impacts to the transit providers. Caltrans will coordinate all street, connector, and ramp closures with the transit service. Wherever possible, these closures should not take place during the peak commute hours. In addition, consecutive ramp and street closures will be avoided.

### **3.2.6 Level of Significance after Mitigation**

No mitigation measures are required for the proposed project.

### 3.3 Air Quality

This section addresses potential impacts to regional and local air quality associated with implementation of the proposed project. Air quality impacts were evaluated for short-term construction emissions and long-term operational emissions of the proposed project. Detailed analytical methodology and data input and output information can be found in the Air Quality Report (Caltrans, 2011a) prepared for this project.

The I-10 HOV project is located in Los Angeles County, within the South Coast Air Basin (SCAB or Basin), which is an approximately 6,745-square-mile area bounded by the Pacific Ocean to the west and the San Gabriel, San Bernardino, and San Jacinto mountains to the north and east. The SCAB includes all of Orange County; Los Angeles County, with the exception of the Antelope Valley; and the nondesert portions of Riverside and San Bernardino counties. Its terrain and geographical location determine the distinctive climate of the Basin, as the Basin is a coastal plain with connecting broad valleys and low hills. Elevations range from sea level to more than 11,000 feet above mean sea level (msl). South Coast Air Quality Management District (SCAQMD) has jurisdiction over air quality issues within the SCAB. While the SCAB has some of the most unhealthful air quality in the nation, air quality within the basin continues to show improvement.

Many statutes, regulations, plans, and policies have been adopted that address air quality issues. The project site and vicinity are subject to air quality regulations developed and implemented at the federal, state, and local levels. Plans, policies, and regulations that are relevant to the proposed project are discussed in the following sections.

#### 3.3.1 Existing Conditions

##### 3.3.1.1 Criteria Pollutants

The criteria pollutants are: carbon monoxide (CO), nitrogen dioxide (NO<sub>2</sub>), ozone (O<sub>3</sub>), particulate matter (PM, broken down for regulatory purposes into particles of 10 micrometers or smaller – PM<sub>10</sub> and particles of 2.5 micrometers and smaller - PM<sub>2.5</sub>), lead (Pb), and sulfur dioxide (SO<sub>2</sub>). The standards for all criteria pollutants are presented in Table 3.3-1; health effects that result from exposure to these pollutants are shown in Table 3.3-2. Nonattainment designations are categorized by EPA into seven levels of severity: basic, marginal, moderate, serious, severe-15<sup>3</sup>, severe-17, and extreme.

The California Air Resources Board (CARB) and SCAQMD maintain a network of more than 38 air quality monitoring stations throughout the SCAB to effectively monitor 38 source receptor areas (SRA) in the region. The proposed project site is located in SRA Number 1, Central Los Angeles County. The nearest air monitoring station to the project site is the Azusa monitoring station, which is located at 803 N. Loren Avenue in the city of Azusa, approximately 4.5 miles north of I-10. Of the six criteria pollutants listed above, three are

---

<sup>3</sup> The “-15” and “-17” designate the number of years within which attainment must be achieved.

TABLE 3.3-1 AMBIENT AIR QUALITY STANDARDS

Ambient Air Quality Standards						
Pollutant	Averaging Time	California Standards <sup>1</sup>		Federal Standards <sup>2</sup>		
		Concentration <sup>3</sup>	Method <sup>4</sup>	Primary <sup>3,5</sup>	Secondary <sup>3,6</sup>	Method <sup>7</sup>
Ozone (O <sub>3</sub> )	1 hour	0.09 ppm (180 µg/m <sup>3</sup> )	Ultraviolet Photometry	---	Same as Primary Standard	Ultraviolet Photometry
	8 hour	0.070 ppm (137 µg/m <sup>3</sup> )		0.075 ppm (147 µg/m <sup>3</sup> )		
Respirable Particulate Matter (PM <sub>10</sub> )	24 Hour	50 µg/m <sup>3</sup>	Gravimetric or Beta Attenuation	150 µg/m <sup>3</sup>	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	20 µg/m <sup>3</sup>		---		
Fine Particulate Matter (PM <sub>2.5</sub> )	24 Hour	No Separate State Standard		35 µg/m <sup>3</sup>	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	12 µg/m <sup>3</sup>	Gravimetric or Beta Attenuation	15.0 µg/m <sup>3</sup>		
Carbon Monoxide (CO)	8 Hour	9.0 ppm (10 mg/m <sup>3</sup> )	Non-Dispersive Infrared Photometry (NDIR)	9.0 ppm (10 mg/m <sup>3</sup> )	None	Non-Dispersive Infrared Photometry (NDIR)
	1 Hour	20 ppm (23 mg/m <sup>3</sup> )		35 ppm (40 mg/m <sup>3</sup> )		
	5 Hour (Lake Tahoe)	6 ppm (7 mg/m <sup>3</sup> )		---	---	---
Nitrogen Dioxide (NO <sub>2</sub> )	Annual Arithmetic Mean	0.030 ppm (57 µg/m <sup>3</sup> )	Gas Phase Chemiluminescence	53 ppb (100 µg/m <sup>3</sup> ) (see footnote 8)	Same as Primary Standard	Gas Phase Chemiluminescence
	1 Hour	0.18 ppm (339 µg/m <sup>3</sup> )		100 ppb (188 µg/m <sup>3</sup> ) (see footnote 8)	None	
Sulfur Dioxide (SO <sub>2</sub> )	24 Hour	0.04 ppm (105 µg/m <sup>3</sup> )	Ultraviolet Fluorescence	---	---	Ultraviolet Fluorescence Spectrophotometry (Pararosaniline Method) <sup>9</sup>
	3 Hour	---		---	0.5 ppm (1300 µg/m <sup>3</sup> ) (see footnote 9)	
	1 Hour	0.25 ppm (655 µg/m <sup>3</sup> )		75 ppb (196 µg/m <sup>3</sup> ) (see footnote 9)	---	
Lead <sup>10</sup>	30 Day Average	1.5 µg/m <sup>3</sup>	Atomic Absorption	---	---	---
	Calendar Quarter	---		1.5 µg/m <sup>3</sup>	Same as Primary Standard	High Volume Sampler and Atomic Absorption
	Rolling 3-Month Average <sup>11</sup>	---		0.15 µg/m <sup>3</sup>		
Visibility Reducing Particles	8 Hour	Extinction coefficient of 0.23 per kilometer – visibility of ten miles or more (0.07 – 30 miles or more for Lake Tahoe) due to particles when relative humidity is less than 70 percent. Method Beta Attenuation and Transmittance through Filter Tape.		Federal Standards		
Sulfates	24 Hour	25 µg/m <sup>3</sup>	Ion Chromatography			
Hydrogen Sulfide	1 Hour	0.03 ppm (42 µg/m <sup>3</sup> )	Ultraviolet Fluorescence			
Vinyl Chloride <sup>10</sup>	24 Hour	0.01 ppm (26 µg/m <sup>3</sup> )	Gas Chromatography			

See footnotes on next page ...

For more information please call CARB-PO at (916) 322-2990

California Air Resources Board (09/08/10)

1. California standards for ozone, carbon monoxide (except Lake Tahoe), sulfur dioxide (1 and 24 hour), nitrogen dioxide, suspended particulate matter – PM10, PM2.5, and visibility reducing particles, are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.
2. National standards (other than ozone, particulate matter, and those based on annual averages or annual arithmetic mean) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest eight hour concentration in a year, averaged over three years, is equal or less than the standard. For PM10, the 24 hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above  $150 \mu\text{g}/\text{m}^3$  is equal to or less than one. For PM2.5, the 24 hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard. Contact U.S. EPA for further clarification and current federal policies.
3. Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon reference temperature of  $25^\circ\text{C}$  and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of  $25^\circ\text{C}$  and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, micromoles per mole of gas.
4. Any equivalent procedure which can be shown to the satisfaction of the CARB to give equivalent results at or near the level of the air quality standard may be used.
5. National Primary Standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health.
6. National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.
7. Reference method as described by the EPA. An “equivalent method” of measurement may be used but must have a “consistent relationship to the reference method” and must be approved by the EPA.
8. To attain this standard, the 3-year average of the 98<sup>th</sup> percentile of the daily maximum 1-hour average at each monitor within an area must not exceed 0.100 ppm (effective January 12, 2010). Note that the EPA standards are in units of parts per billion (ppb). California standards are in parts per million (ppm). To directly compare the national standards to the California standards, the units can be converted from ppb to ppm. In this case, the national standard of 53 ppb and 100 ppb are identical to the 0.053 ppm and 0.100 ppm, respectively.
9. On June 2, 2010, the US EPA established a new 1-hour SO<sub>2</sub> standard, effective August 23, 2010, which is based on the 3-year average of the annual 99<sup>th</sup> percentile of 1-hour daily maximum concentrations. EPA also proposed a new automated Federal Reserve Method (FRM) using ultraviolet technology, but will retain the older pararosaniline methods until the new FRM have adequately permeated State monitoring networks. The EPA also revoked both the existing 24-hour SO<sub>2</sub> standard of 0.14 ppm and the annual primary SO<sub>2</sub> standard of 0.030 ppm, effective August 23, 2010. The secondary SO<sub>2</sub> standard was not revised at that time; however, the secondary standard is undergoing a separate review by EPA. Note that the new standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the new primary national standard to the California standard the units can be converted to ppm. In this case, the national standard of 75 ppb is identical to 0.075 ppm.
10. The CARB has identified lead and vinyl chloride as “toxic air contaminants” with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.
11. National lead standard, rolling 3-month average final rule signed October 15, 2008.

For more information please call CARB-PO at (916) 322-2990

California Air Resources Board (9/18/2010)

**TABLE 3.3-2 HEALTH EFFECTS SUMMARY FOR CRITERIA AIR POLLUTANTS**

<b>Pollutant</b>	<b>Sources</b>	<b>Primary Effects</b>
Ozone (O <sub>3</sub> )	Atmospheric reaction of organic gases with nitrogen oxides in the presence of sunlight.	Aggravation of respiratory diseases; irritation of eyes; impairment of pulmonary function; plant leaf injury.
Nitrogen Dioxide (NO <sub>2</sub> )	Motor vehicle exhaust; high temperature; stationary combustion; atmospheric reactions.	Aggravation of respiratory illness; reduced visibility; reduced plant growth; formation of acid rain.
Carbon Monoxide (CO)	Incomplete combustion of fuels and other carbon-containing substances, such as motor vehicle exhaust; and natural events, such as decomposition of organic matter.	Reduced tolerance for exercise; impairment of mental function; impairment of fetal development; impairment of learning ability; death at high levels of exposure; aggravation of some cardiovascular diseases (angina).
Particulate Matter (PM <sub>10</sub> and PM <sub>2.5</sub> )	Fuel combustion in motor vehicles, equipment, and industrial sources; construction activities; industrial processes; residential and agricultural burning; atmospheric chemical reactions.	Reduced lung function; aggravation of the effects of gaseous pollutants; aggravation of respiratory and cardio-respiratory diseases; increased cough and chest discomfort; soiling; reduced visibility.
Sulfur Dioxide (SO <sub>2</sub> )	Combustion of sulfur-containing fossil fuels; smelting of sulfur-bearing metal ores; industrial processes.	Aggravation of respiratory and cardiovascular diseases; reduced lung function; carcinogenesis; irritation of eyes; reduced visibility; plant injury; deterioration of materials (e.g., textiles, leather, finishes, coating).
Lead (Pb)	Contaminated soil.	Impairment of blood function and nerve construction; behavioral and hearing problems in children.

Source: EPA Web site at [www.epa.gov/air/oaqps/greenbk/](http://www.epa.gov/air/oaqps/greenbk/). Accessed November 2006.

monitored at this station: O<sub>3</sub>, CO, and particulate matter (PM<sub>10</sub>, and PM<sub>2.5</sub>). Table 3.3-3 presents ambient air quality data recorded at this station for the past 3 years.

As Table 3.3-3 shows, exceedances of the California standards were recorded at the Azusa monitoring station for O<sub>3</sub> (1-hour, California standard; 8-hour national standard and 8-hour California standard), PM<sub>10</sub> (24-hour California standard), and PM<sub>2.5</sub> (24-hour national standard) on one or more occasions from 2008 through 2010. No exceedances of either the state or national standards were recorded for CO.

**TABLE 3.3-3 CRITERIA AIR POLLUTANTS DATA SUMMARY  
 (AZUSA MONITORING STATION)**

Pollutant	Standard	2008	2009	2010
1-hour Ozone (O <sub>3</sub> )	Maximum 1-hour Concentration (ppm)	0.135	0.15	0.104
	1-hour California designation value	0.15	0.140	0.130
	1-hour expected peak-day concentration	0.148	0.141	0.134
	Days > CAAQS (0.09 ppm) <sup>a</sup>	34	23	5
8-hour Ozone (O <sub>3</sub> )	National maximum 8-hour concentration (ppm)	0.111	0.107	0.081
	National second-highest 8-hour concentration (ppm)	0.107	0.094	0.078
	State maximum 8-hour concentration (ppm)	0.111	0.108	0.082
	State second-highest 8-hour concentration (ppm)	0.108	0.094	0.078
	8-hour national designation value	0.096	0.096	0.089
	8-hour California designation value	0.114	0.114	0.104
	8-hour expected peak-day concentration	0.119	0.115	0.107
	Days > NAAQS (0.075 ppm) <sup>a</sup>	28	17	3
Days > CAAQS (0.07 ppm) <sup>a</sup>	39	31	8	
Particulate Matter (PM <sub>10</sub> )	National <sup>b</sup> maximum 24-hour concentration (µg/m <sup>3</sup> )	98.0	74.0	70.0
	National <sup>b</sup> second-highest 24-hour concentration (µg/m <sup>3</sup> )	75.0	65.0	59.0
	State <sup>c</sup> maximum 24-hour concentration (µg/m <sup>3</sup> )	96.0	72.0	68.0
	State <sup>c</sup> second-highest 24-hour concentration (µg/m <sup>3</sup> )	74.0	64.0	58.0
	State annual average concentration (µg/m <sup>3</sup> )	*	*	*
	Days > CAAQS (50 µg/m <sup>3</sup> ) <sup>a,e</sup>	12	7	5
Days > NAAQS (150 µg/m <sup>3</sup> ) <sup>a,e</sup>	0	0	0	
Particulate Matter (PM <sub>2.5</sub> )	National <sup>b</sup> maximum 24-hour concentration (µg/m <sup>3</sup> )	53.0	72.0	44.4
	National <sup>b</sup> second-highest 24-hour concentration (µg/m <sup>3</sup> )	48.1	46.9	35.4
	State <sup>c</sup> maximum 24-hour concentration (µg/m <sup>3</sup> )	53.0	72.0	44.4
	State <sup>c</sup> second-highest 24-hour concentration (µg/m <sup>3</sup> )	48.1	46.9	35.4
	National annual designation value (µg/m <sup>3</sup> )	15.1	*	*
	National annual average concentration (g/m <sup>3</sup> )	14.0	*	*
	State annual designation value (g/m <sup>3</sup> )	*	*	*
	State annual average concentration (g/m <sup>3</sup> ) <sup>d</sup>	*	*	*
Days > NAAQS 24-hour (>35 (g/m <sup>3</sup> )) <sup>a</sup>	5	6	1	
Carbon Monoxide (CO)	National <sup>b</sup> maximum 8-hour concentration (ppm)	1.54	1.67	1.38
	National <sup>b</sup> second-highest 8-hour concentration (ppm)	1.40	1.46	1.34
	California <sup>c</sup> maximum 8-hour concentration (ppm)	1.54	1.67	1.38
	California <sup>c</sup> second-highest 8-hour concentration (ppm)	1.40	1.46	1.34
	Maximum 1-hour concentration (ppm)	2.30	*	*
	Second-highest 1-hour concentration (ppm)	2.1	*	*
	Days > NAAQS 8-hour (≥ 9.0 ppm) <sup>a</sup>	0	0	0
	Days > CAAQS 8-hour (≥ 9.0 ppm) <sup>a</sup>	0	0	0
	Days > NAAQS 1-hour (≥ 35 ppm) <sup>a</sup>	0	0	0
	Days > CAAQS 1-hour (≥ 20 ppm) <sup>a</sup>	0	0	0

µg/m<sup>3</sup> – micrograms per cubic meter; ppm – parts per million;  
 CAAQS – California ambient air quality standards; NAAQS – National ambient air quality standards

\* Insufficient data available to determine the value.

<sup>a</sup> An exceedance is not necessarily a violation.

<sup>b</sup> National statistics are based on standard conditions data. In addition, national statistics are based on samplers, using federal reference or equivalent methods.

<sup>c</sup> State statistics are based on local conditions data, except in the South Coast Air Basin; statistics there are based on standard conditions data. In addition, state statistics are based on California-approved samplers.

<sup>d</sup> The state criteria for ensuring that the data are complete for calculating valid annual averages are more stringent than the national criteria.

<sup>e</sup> Mathematical estimate of how many days concentrations would have been measured as higher than the level of the standard had each day been monitored.

Source: Caltrans, Air Quality Report, Revised August 2011.

### 3.3.1.2 Regional Transportation Conformity

Regional conformity was demonstrated following the Caltrans Conformity Flowchart that is included in the Caltrans Standard Environmental Report document outline (Caltrans, 2011b). In determining whether a project conforms to an approved air quality plan, agencies must use current emission estimates based on the most recent population, employment, travel, and congestion projections determined by an area's Metropolitan Planning Organization (MPO). The MPOs are required to develop and maintain long-range plans and programs, such as 20-year Regional Transportation Plan (RTP) and 4-year (or longer) Regional Transportation Improvement Program (RTIP), that set out transportation policies and programs for the region. A conforming RTIP model outcome projects that the regulated pollutants will be reduced to acceptable levels within time frames that meet the National Ambient Air Quality Standards (NAAQS). SCAG is responsible for developing the RTP and RTIP for the project region, including Los Angeles County. The 2008 RTP was found to conform by SCAG on May 8, 2008, and Federal Highway Administration (FHWA) and Federal Transit Administration (FTA) adopted the air quality conformity finding on June 5, 2008. The 2008 RTIP was federally approved on November 17, 2008.

### 3.3.1.3 Project-Level Conformity

#### National Ambient Air Quality Standards

Basic elements of the federal Clean Air Act (CAA) include NAAQS for criteria air pollutants, hazardous air pollutants (HAPs) emission standards, state attainment plans, motor vehicle emissions standards, stationary source emission standards and permits, acid rain control measures, stratospheric O<sub>3</sub> protection, and enforcement provisions.

The NAAQS have two tiers: primary standards to protect public health and secondary standards to prevent environmental degradation (e.g., damage to vegetation and property, visibility impairment). The CAA mandates that the state submit and implement a State Implementation Plan (SIP) for areas not meeting the NAAQS. These plans must include pollution control measures that demonstrate how the standards will be met.

The 1990 Amendments to the CAA identify specific emission-reduction goals for areas not meeting the NAAQS. These amendments require a demonstration of reasonable progress toward attainment and incorporation of additional sanctions for failure to attain or to meet interim milestones. The sections of the CAA that are most applicable to the proposed project include Title I (Nonattainment Provisions) and Title II (Mobile Source Provisions).

Title I of the CAA identifies attainment, nonattainment, and unclassifiable areas with regard to the criteria pollutants, and it sets deadlines for all areas to reach attainment for the following criteria pollutants: O<sub>3</sub>, NO<sub>2</sub>, SO<sub>2</sub>, PM<sub>10</sub>, CO, and Pb. The NAAQS were amended in July 1997 to include the 8-hour O<sub>3</sub> standard and an NAAQS for PM<sub>2.5</sub>.

Title II of the CAA contains many provisions with regard to mobile sources, including motor vehicle emission standards (e.g., new tailpipe emissions standards for cars and trucks and nitrogen oxides [NO<sub>x</sub>] standards for heavy-duty vehicles), fuel standards (e.g., requirements for reformulated gasoline), and a program for cleaner fleet vehicles.

The U.S. Environmental Protection Agency (EPA) reviews the most up-to-date scientific information and the existing ambient standard for each pollutant every 5 years and obtains advice from the Clean Air Scientific Advisory Committee on each review. Based on these, EPA applies consideration to revise NAAQS accordingly. The NAAQS for PM were amended in September 2006 to strengthen the 24-hour PM<sub>2.5</sub> standard. EPA revised the O<sub>3</sub> standard in 1997, setting the 8-hour standard at 0.08 parts per million (ppm). On March 12, 2008, EPA strengthened the 8-hour O<sub>3</sub> NAAQS based on new scientific evidence about the effects of ground-level O<sub>3</sub> on public health and the environment. The new standard (primary and secondary) is 0.075 ppm. Furthermore, based on new scientific studies and several health risk assessment results, EPA revised the Pb NAAQS to provide increased protection for children and other at-risk populations against adverse health effects, most notably including neurological effects in children. The revised standard level is 0.15 micrograms per cubic meter (µg/m<sup>3</sup>) over a period of 3 months. The final rule was signed October 15, 2008. The area designation/classification based on the new standard became effective in March 2010, and attainment demonstration SIPs will be due by 2013.

The SCAB is currently classified as a nonattainment area for O<sub>3</sub> and fine particulates (PM<sub>10</sub> and PM<sub>2.5</sub>). Based on the 1990 CAAAs, the SCAB nonattainment designations are as follows: nonattainment for PM<sub>2.5</sub>, requiring attainment by 2015; and “severe-17” for 8-hour O<sub>3</sub>, requiring attainment with the standard by 2021 (the former 1-hour O<sub>3</sub> standard was revoked by EPA on June 15, 2005; thus, it is no longer in effect for California). The SCAB was in “serious nonattainment” status for PM<sub>10</sub> until 2006. The Basin met the PM<sub>10</sub> standards at all stations except for western Riverside, where the annual PM<sub>10</sub> standard was not met as of 2006. The annual standard was revoked by EPA in December 2006 due to a lack of evidence linking health problems to long-term exposure to coarse particulate pollution. The 24-hour PM<sub>10</sub> standard is retained at its existing value. Currently, the Basin meets the 24-hour average federal standard, and the only days that exceed the standard are associated with high periodic wind events or exceptional events, such as wildfires.

For CO, attainment demonstrations were previously submitted to EPA in 1992, 1994, and 1997 to bring the SCAB into attainment with the federal standard in 2000. In 2001, the CO standard was exceeded in the SCAB on 3 days, thus leaving the basin in nonattainment status. At that time, a request to EPA for an extension of the attainment date to 2002 was planned to be included in the revision to the 1997 Air Quality Management Plan (AQMP). Due to delays, the CO attainment demonstration provided in the 1997 AQMP amendments lapsed. In January 2005, CARB declared CO attainment for the SCAB based on air quality data collected during 2001 through 2003. The redesignation was approved by the State Office of Administrative Law, and it became effective July 23, 2004. The 2005 CO Redesignation

Request and Maintenance Plan for SCAB was reviewed and approved by EPA, and the federal CO attainment status for SCAB became effective June 11, 2007.

All nonattainment areas are subject to a “transportation conformity” measure, requiring local transportation and air quality officials to coordinate their planning to ensure that transportation projects do not hinder an area’s ability to reach its clean air goals. These requirements become effective 1-year after an area’s nonattainment designation.

For a nonattainment area, the CAA provides voluntary reclassification of the area to a higher classification by submitting a request to EPA. The SCAQMD requested (as part of its 2007 AQMP submittal to EPA) a reclassification for the Basin from “severe-17” to “extreme” nonattainment. On April 15, 2010, EPA’s Region 9 Administrator signed a final rule to grant the reclassification request. This would extend the 8-hour O<sub>3</sub> attainment date to 2024 and allow attainment demonstration to rely on emission reductions from measures that anticipate the development of new technologies or improvement of existing control technologies.

### California Ambient Air Quality Standards (CAAQS)

The State of California began to set its ambient air quality standards, CAAQS, in 1969 under the mandate of the Mulford-Carrell Act. The California Clean Air Act (CCAA) was enacted September 30, 1988, and it became effective January 1, 1989. The CCAA requires all areas of the state to achieve and maintain the CAAQS by the earliest practicable date. Table 3.3-2 shows the CAAQS currently in effect for each of the criteria pollutants, as well as the other pollutants recognized by the state. As shown in Table 3.3-2, the CAAQS are more stringent than the NAAQS for most of the criteria air pollutants. In general, California state standards are more health protective than the corresponding NAAQS. In addition, the CAAQS include standards for other pollutants recognized by the state. For example, California has set standards for sulfates, hydrogen sulfide, vinyl chloride, and visibility-reducing particles. Moreover, on April 28, 2005, CARB approved a new 8-hour-average O<sub>3</sub> standard of 0.070 ppm to further protect California’s most vulnerable population (i.e., children) from the adverse health effects associated with ground-level O<sub>3</sub>. The standard went into effect in early 2006.

According to the CAAQS, the SCAB is classified as an extreme nonattainment area for O<sub>3</sub> and nonattainment area for PM<sub>10</sub> and PM<sub>2.5</sub>. The SCAB complies with the state standards for sulfates, hydrogen sulfide, and vinyl chloride, and is unclassified for the California standard for visibility-reducing particles. Table 3.3-4 provides the Basin’s attainment status with respect to federal and state standards.

### Project-Level Conformity Determination

Project-level conformity is required for projects in CO, PM<sub>10</sub>, and PM<sub>2.5</sub> nonattainment and maintenance areas. As discussed previously, a region is a nonattainment area if one or more monitoring stations in the region fail to attain the relevant CAAQS or NAAQS. Areas that were previously designated nonattainment, but have recently met the CAAQS or NAAQS,

are called maintenance areas. In general, projects must not cause the standards to be violated, and in nonattainment areas, the project must not cause any increase in the number and severity of violations.

In March 2006, the Transportation Conformity Rule was updated to include regulations for performing qualitative analysis of PM<sub>10</sub> and PM<sub>2.5</sub> hot-spot impacts. Only projects that are considered “Projects of Air Quality Concern” (POAQC) are required to perform an analysis. POAQCs are defined generally, as: (1) new or expanded highway projects that have a significant number of or significant increase in diesel vehicles; (2) projects affecting intersections that are level of service (LOS) D, E, or F with a significant number of diesel vehicles; (3) new or expanded bus and rail terminals and transfer points with a significant number of diesel vehicles congregating in a single location; and (4) projects in or affecting locations, areas, or categories of sites that are identified in the PM<sub>10</sub> or PM<sub>2.5</sub> applicable implementation plan as sites of possible violation.

**TABLE 3.3-4 SOUTH COAST AIR BASIN ATTAINMENT STATUS**

Pollutant	Attainment Status Basis	
	National Standard	California Standard
Ozone (O <sub>3</sub> ), 1-hour average	Revoked by EPA (June 15, 2005)	Non-Attainment
Ozone (O <sub>3</sub> ), 8-hour average	Non-Attainment, Extreme	Non-Attainment
Carbon Monoxide (CO)	Attainment-Maintenance	Attainment
PM <sub>10</sub>	Non-Attainment, Serious	Non-Attainment
PM <sub>2.5</sub>	Non-Attainment	Non-Attainment
Lead (Pb)	Non-Attainment*	Non-Attainment*
Nitrogen Dioxide (NO <sub>2</sub> )	Attainment-Maintenance	Non-Attainment

\* Los Angeles County Portion only.

Source: Air Quality Report for I-10 HOV Project (Caltrans, 2011a)

**3.3.1.4 Toxic Air Contaminants**

Toxic air contaminants (TACs) consist of compounds that include metals, minerals, soot, and hydrocarbon-based chemicals. There are hundreds of different types of air toxics with varying degrees of toxicity. Sources of TACs include industrial processes, such as petroleum refining and chrome-plating operations; commercial operations, such as gasoline stations and dry cleaners; and motor vehicle exhaust. TACs are a concern in the SCAB because of the large number of mobile sources and industrial facilities located throughout the basin.

California regulates TACs through its Air Toxics Program, which is mandated in Chapter 3.5 of the Health and Safety Code – *Toxic Air Contaminants*, and Part 6 – *Air Toxics Hot Spots Information and Assessment* (H&SC Sections 39660 *et seq.* and 44300 *et seq.*, respectively).

The regulatory approach used in controlling TAC levels relies on a quantitative risk assessment process rather than ambient air conditions to determine allowable emission levels from the source. In addition, for carcinogenic air pollutants, there is no safe concentration in the atmosphere. Local concentrations can pose a health risk and are termed “toxic hot spots.” See the Air Quality Technical Report (Caltrans, 2011a) for a more detailed discussion of health effects due to TAC emissions.

The most comprehensive study on air toxics in the SCAB, which was conducted by SCAQMD, is the Multiple Air Toxics Exposure Study (MATES-II [2000] and MATES-III [2008]). The monitoring program measured more than 30 air toxics, including gaseous and particulate TACs. The monitoring study was accompanied by a computer modeling study in which SCAQMD estimated the risk of cancer from breathing toxic air pollution throughout the region, based on emissions and weather data. MATES-II found that the maximum cancer risk in the region from carcinogenic air pollutants ranged from approximately 1,100 in a million to 1,750 in a million, with an average regional risk of approximately 1,400 in a million. The higher risk levels were found in the urban core areas in south central Los Angeles County, in Wilmington adjacent to the San Pedro Bay Ports, and near freeways. Overall, the study showed that airborne diesel particulate matter (DPM) contributed approximately 70 percent of the total ambient air toxics risk. Mobile sources accounted for approximately 90 percent of the cancer risk, and industries and other stationary sources accounted for the remaining 10 percent.

The MATES III Study Final Report, a follow-up to the MATES-II study, was released in September 2008. The results of the MATES III study indicate that:

- Across the Basin, the population-weighted risk was 853 in one million, approximately 8 percent lower compared to the MATES-II period of 931 per million;
- The overall average lifetime risk from TACs in the Wilmington (Ports) area experienced an approximate 17 percent increase. The 2005 average population-weighted air toxics risk in the Ports area was estimated to be approximately 1,415 per million, compared with 1,208 per million lifetime cancer risk as estimated for MATES II period (1998-1999);
- Mobile source toxics account for 94 percent of risk; and
- Diesel accounts for 84 percent of air toxics risk.

Based on the finding that DPM is a significant contributor to cancer risk in the region, SCAQMD has approved fleet rules to limit diesel exhaust emitted by municipal vehicle fleets, trash trucks, street sweepers, taxis, and buses in the region. That rule is one of many measures outlined in a comprehensive plan to reduce toxic air pollution from mobile and stationary sources. Other programs to reduce diesel emissions include SCAQMD grant programs for the conversion of diesel equipment to alternative fuels.

### **3.3.1.5 Asbestos**

According to the California Division of Mines and Geology, the proposed project location is not in an area of naturally occurring asbestos (NOA). NOA areas are identified based on the type of rock found in the area. Asbestos-containing rocks found in California are ultramafic rocks, including serpentine rocks. In Los Angeles County, these types of rocks are found only on Catalina Island, and they are not present in the project area.

### **3.3.1.6 Sensitive Receptors**

Some land uses are considered more sensitive to changes in air quality than others, depending on the demographic characteristics of occupants and users and the activities involved. Sensitive receptors include residential areas, hospitals, elder-care facilities, rehabilitation centers, elementary schools, daycare centers, and parks. Residential areas are considered sensitive to air pollution because residents, including children and the elderly, tend to be at home for extended periods of time, resulting in sustained exposure to pollutants.

Land adjacent to and in the nearby vicinity of I-10 is nearly built-out. A mix of uses exists, including commercial (i.e., retail, office, motel, auto dealerships, restaurants, medical), institutional (i.e., daycare centers, schools, skilled nursing facility), single- and multi-family residential, cemetery, and vacant land. See Section 3.10.1.1 and Table 3.10-1 for a detailed description of existing land uses in the vicinity of the project corridor.

## **3.3.2 Regulatory Requirements**

The federal CAA as amended in 1990 is the federal law that governs air quality. The CCAA of 1988 is its companion state law. These laws, and related regulations by the EPA and CARB, set standards for the quantity of pollutants that can be in the air. At the federal level, these standards are called NAAQS. NAAQS and State ambient air quality standards have been established for six transportation-related criteria pollutants that have been linked to potential health concerns. Criteria pollutants are discussed in Section 3.3.1.1 and The NAAQS and State standards are set at a level that protects public health with a margin of safety, and are subject to periodic review and revision. Both State and Federal regulatory schemes also cover TACs. Some criteria pollutants are also air toxics or may include certain air toxics within their general definition.

Federal and State air quality standards and regulations provide the basic scheme for project-level air quality analysis under NEPA and CEQA. In addition to this type of environmental analysis, a parallel “Conformity” requirement under the CAA also applies.

CAA Section 176(c) prohibits the U.S. Department of Transportation and other federal agencies from funding, authorizing, or approving plans, programs, or projects that are not first found to conform to the SIP for achieving the goals of Clean Air Act requirements related to the NAAQS. “Transportation Conformity” Act takes place on two levels: the regional, or planning and programming, level, and the project level. The proposed project must conform at both levels to be approved. Conformity requirements apply only in

nonattainment and “maintenance” (former nonattainment) areas for the NAAQS, and only for the specific NAAQS that are or were violated. EPA regulations at 40 CFR 93 govern the conformity process.

Regional conformity is concerned with how well the regional transportation system supports plans for attaining the standards set for CO, NO<sub>2</sub>, O<sub>3</sub>, PM<sub>10</sub> and PM<sub>2.5</sub>, and in some areas SO<sub>2</sub>. California has nonattainment or maintenance areas for all of these transportation-related “criteria pollutants” except SO<sub>2</sub>, and also has a nonattainment area for lead. However, lead is not currently required by the CAA to be covered in transportation conformity analysis. Regional conformity is based on RTPs and FTIPs that include all of the transportation projects planned for a region over a period of at least 20 years for the RTP, and 4 years for the FTIP. RTP and FTIP conformity is based on use of travel demand and, air quality models to determine whether or not the implementation of those projects would conform to emission budgets or other tests showing that requirements of the Clean Air Act and the SIP are met. If the conformity analysis is successful, the MPO and FHWA, and FTA, make determinations that the RTP and FTIP are in conformity with the SIP for achieving the goals of the Clean Air Act. Otherwise, the projects in the RTP and/or FTIP must be modified until conformity is attained. If the design concept, scope, and open to traffic schedule of a proposed transportation project are the same as described in the RTP and FTIP, then the proposed project is deemed to meet regional conformity requirements for purposes of project-level analysis.

Conformity at the project-level also requires “hot spot” analysis if an area is “nonattainment” or “maintenance” for CO and/or PM<sub>10</sub> or PM<sub>2.5</sub>. A region is “nonattainment” if one or more of the monitoring stations in the region measures violation of the relevant standard, and U.S. EPA officially designates the area nonattainment. Areas that were previously designated as nonattainment areas but subsequently meet the standard may be officially redesignated to attainment by the EPA, and are then called “maintenance” areas. “Hot spot” analysis is essentially the same, for technical purposes, as CO or particulate matter analysis performed for NEPA purposes. Conformity does include some specific procedural and documentation standards for projects that require a hot spot analysis. In general, projects must not cause the “hot spot”-related standard to be violated, and must not cause any increase in the number and severity of violations in nonattainment areas. If a known CO or particulate matter violation is located in the project vicinity, the project must include measures to reduce or eliminate the existing violation(s) as well.

Additional regulatory requirements are addressed in Section 2.2 of the Air Quality Report (Caltrans, 2011a).

### **3.3.3 Significance Criteria**

Criteria for determining the significance of impacts related to air quality are based on the CEQA Guidelines, Appendix G – Environmental Checklist. Impacts during proposed project

construction and operation would be considered significant under the following circumstances:

**AQ-1:** Conflict with or obstruct implementation of the applicable air quality plan?

**AQ-2:** Violate any air quality standard or contribute substantially to an existing or projected air quality violation?

**AQ-3:** Expose sensitive receptors to substantial pollutant concentrations?

**AQ-4:** Create objectionable odors affecting a substantial number of people?

### **3.3.4 Impacts**

An air quality analysis was performed for the proposed project. Detailed methodologies, input and output data, and analytical results were presented in the *Air Quality Report* (Caltrans, 2011a).

#### **3.3.4.1 No Project Alternative**

The No Project Alternative would not include construction of HOV lanes associated with the Proposed Project; hence, there would be no air quality impacts associated with construction activities. Operationally, forecasted increases in traffic volumes would still occur under this alternative. The No Project Alternative would not be consistent with regional goals and policies for improving air quality within the Basin, including the “High Occupancy Vehicle Strategy” contained in SCAG’s AQMP. The AQMP incorporates control strategies from the 2008 RTP and 2011 FTIP, so the No Project Alternative would therefore not be consistent with local government goals and policies for reduction of air quality emissions within each affected local jurisdiction. This inconsistency is considered to be a significant impact. However, the proposed project would address impacts associated with the existing lack of HOV connectivity within the project area.

As with the Proposed Project, vehicle emission standards are expected to be more stringent in the future. As a result, air quality under the No Project Alternative should remain the same or may improve with time. The No Project Alternative would therefore result in less than significant impacts under CEQA.

#### **3.3.4.2 Proposed Project Alternative**

**AQ-1: The proposed project would not conflict with or obstruct implementation of the applicable air quality plan.**

Project-level transportation conformity was determined by conducting hot-spot analysis for CO, PM10, and PM2.5, for which the SCAB is designated as nonattainment or maintenance area. The hot-spot analyses were based on the Caltrans guidance document, Transportation Project-Level Carbon Monoxide Protocol (CO Protocol) (UC Davis, 1997), and the FHWA/EPA guidance document, Transportation Conformity Guidance for Qualitative Hot-

Spot Analyses in PM<sub>2.5</sub> and PM<sub>10</sub> Nonattainment and Maintenance Areas (Guidelines) (EPA, 2006).

To conform to state and federal air quality plans, a project must be included in approved transportation plans and programs. The proposed project is included in the currently approved plans: the 2008 RTP and the 2011 FTIP. The 2008 RTP was adopted by SCAG on May 8, 2008; FHWA and FTA approved the 2008 Plan on June 5, 2008. The 2011 FTIP was federally approved on November 17, 2008. On December 8, 2010, SCAG-adopted Amendment No. 4 to the 2008 RTP and Amendment No. 11-10 on the 2011 FTIP were found to conform by FHWA and FTA on December 8, 2010, and August 8, 2011.

The proposed project is fully funded and is referenced in the 2008 RTP and in the 2011 FTIP including Amendments as one of the Los Angeles Congestion Reduction Demonstration (LACRD) initiative projects. The project is also listed in the FY 2008-2009 Annual Listing of Obligated Projects Federal Funds – Los Angeles County on page 15. The following project information is excerpted from the FTIP Listing with RTP IDs: LA000548, LA0B875; Program Code: CAN69 as follows:

- Lead Agency – Caltrans
- Project ID# - LA000548 and LA0B875
- Air Basin – SCAB
- Model # - L465 and L466
- Program Code – CAN69
- Route – 10
- Begin Post Mile – 33.4
- End Post Mile – 42.4

Description from the 2011 FTIP, State Project List on page 6 of 19 – In Los Angeles – Route 10: FROM PUENTE TO CITRUS HOV LANES FROM 8 TO 10 LANES & SOUNDWALLS (EA# 117070, 11172, 1170U, PPNO# 0309N, 0309s); ROUTE 10: HOV LANES FROM CITRUS TO ROUTE 57/210 (EA# 11934, PPNO# 0310B).

The current design concept and scope of the proposed project is consistent with the project description in the FTIP document and the assumptions in SCAG's regional emission analysis. As such, the project would not interfere with the timely implementation of the TCMs identified in the currently approved SIP. Because the proposed project is included in the list of projects in the FTIP, the regional emissions contemplated by the RTP would not change due to the implementation of this project; therefore, the proposed project would be in conformance with the CAA. Moreover, the project would add capacity intended for use by HOVs, which is an objective of both the regional and federal plans. A beneficial effect would therefore apply to the proposed project.

**AQ-2: The proposed project would not violate any air quality standard or contribute substantially to an existing or projected air quality violation.**

**Construction Impacts.** Short-term air quality impacts would occur due to the release of airborne particulate emissions (PM<sub>10</sub> and PM<sub>2.5</sub>) generated by excavation, grading, hauling, and other construction activities. Construction activities for large development projects are estimated by the EPA to add approximately 1.2 tons of fugitive dust per acre of soil disturbed per month of activity. However, PM<sub>10</sub> emissions typically vary from day to day, depending on the nature and magnitude of construction activity and local weather conditions. PM<sub>10</sub> emissions depend on soil moisture, silt content of soil, wind speed, and the mix of equipment operating. Larger dust particles settle near the source, while fine particles disperse over greater distances from the construction site.

If water or other soil stabilizers are used to control dust, the emissions can be reduced by up to 50 percent. Caltrans' Standard Specifications (Section 14-9.02) pertaining to dust minimization requirements requires use of water or dust palliative compounds to reduce potential fugitive dust emissions during construction. During construction, contractors will also be required to comply with the requirements of applicable state and local regulations associated with particulates including, but not limited to, SCAQMD Rules 401 (Visible Emissions), 402 (Nuisance), and 403 (Fugitive Dust).

Section 93.122(d)(2) of the EPA Transportation Conformity Rule requires that, in PM<sub>10</sub> and PM<sub>2.5</sub> nonattainment and maintenance areas (for which the SIPs identify construction-related fugitive dust as a contributor to the area problem), the RTIP should conduct the construction-related fugitive PM emission analysis. The 2003 PM<sub>10</sub> and 2007 SIP AQMP emissions budgets for SCAB include the construction and unpaved road emissions. The 2008 RTIP PM<sub>10</sub> and PM<sub>2.5</sub> regional emissions analysis includes the construction and unpaved road emissions for conformity finding.

In addition to dust-related PM<sub>10</sub> emissions, other air emissions from construction equipment and products used (e.g., asphalt) are anticipated and would include CO, SO<sub>2</sub>, NO<sub>x</sub>, VOCs, TACs, and some soot particulates in exhaust emissions. Ozone is a regional pollutant that is derived from NO<sub>x</sub> and VOCs in the presence of sunlight and heat. Because construction activities would be temporary and would require less than five years to complete, a detailed construction emissions analysis is not required for conformity purposes. Additional regulatory requirements that will be complied with during construction include SCAQMD Rules 431.2 (Sulfur Content of Liquid Fuels), 1108 (Cutback Asphalt), 1108.1 (Emulsified Asphalt), and 1113 (Architectural Coatings).

In areas where localized construction activities increase traffic congestion, CO and other emissions from traffic would increase slightly while those vehicles are delayed. These emissions would be temporary and largely limited to the immediate area surrounding the construction site. In order to minimize temporary exhaust emissions from heavy-duty trucks

and construction equipment in the vicinity of sensitive receptors, controls (e.g., limit extended idling, equipment maintenance) will be required in accordance with Caltrans standard specifications.

SO<sub>2</sub> is generated by oxidation during combustion of organic sulfur compounds contained in diesel fuel. Off-road diesel fuel meeting Federal standards can contain 300 parts per million (ppm) or more of sulfur, whereas on-road diesel is restricted to less than 15 ppm of sulfur. However, under California law and CARB regulations, off-road diesel fuel used in California must meet the same sulfur and other standards as on-road diesel fuel (not more than 15 ppm), so SO<sub>2</sub> emissions impacts due to diesel exhaust are anticipated to be minimal (Caltrans, 2011a).

**Operational Impacts.** When operational, compared to the No Project Alternative the proposed project is intended to reduce congestion and increase travel speed on I-10. With the exception of NO<sub>x</sub>, it is anticipated that the proposed project would result in a slight decrease in the amount of criteria pollutant emissions due to engine combustion (i.e., VOC, NO<sub>x</sub>, CO and PM).

CT-EMFAC (v 2.1) was utilized to estimate the current and future (2015 and 2035) project-level PM<sub>2.5</sub>, and PM<sub>10</sub> emissions. Results of this analysis, shown in Table 3.3-5, indicate that implementation of the project would result in reduction of particulate matter emissions when compared to the No Project Alternative. Thus, the project is not expected to adversely affect air quality with respect to localized concentrations of either PM<sub>2.5</sub>, and PM<sub>10</sub>. Given these considerations, the proposed project should result in an overall beneficial effect during facility operations, albeit small, on air pollutant emissions (Caltrans, 2011a).

**TABLE 3.3-5 EXISTING AND FUTURE PARTICULATE MATTER EMISSIONS (LB/DAY)**

		Existing Year, 2008	Opening Year, 2015		Horizon Year, 2035	
			Emissions	Change from No-Build	Emissions	Change from No-Build
PM <sub>2.5</sub>	No-Build	162.8	134.4	-1.4	143.6	-16.3
	Build	<del>162.8</del>	133.0		138.7	
PM <sub>10</sub>	No-Build	178.5	145.4	-3.0	154.0	-5.5
	Build	<del>178.5</del>	142.4		148.5	

Source: Qualitative PM<sub>2.5</sub> and PM<sub>10</sub> Hot-Spot Analysis. Caltrans, 2009.

**AQ-3: The proposed project would not expose sensitive receptors to substantial pollutant concentrations.**

**Construction Impacts.** See response to AQ-2 above. While the risk of meaningful asbestos content in soil or road surfaces disturbed during construction is considered to be very low, Caltrans and the contractors remain subject to the relevant provisions of 17 CCR § 93105 (i.e., “(b)(3)” and subsequent related provisions), as well as 17 CCR § 93106. This provision

provides an “Asbestos Airborne Toxic Control Measure for Construction, Grading, Quarrying, and Surface Mining Operations.”

These construction-related air quality impacts would be temporary and controlled by enforceable regulations such as applicable SCAQMD rules and, to the extent applicable, 17 CCR § 93105 and 93106. Temporary air quality impacts are not considered adverse with the application of relevant provisions from Caltrans’ Standard Specifications document to be included in construction contract documents, and follow-up monitoring of those provisions consistent with relevant guidance from Caltrans’ *Construction Manual*.

**Operational Impacts, Carbon Monoxide.** Once operational, the proposed project should result in a reduction of CO levels at all receptors compared to the No Project Alternative. The proposed project meets three conditions of the Level Two Qualitative Screening of Transportation Project CO Protocol for projects, as follows:

Condition (a): Does the build alternative have at least 2 percent more traffic operating in cold start mode?

No, the proposed project would provide non-standard median HOV lanes along the I-10 and would not involve changes to the current land use within the project area; therefore, it would not affect the percentage of vehicles operating in a cold start mode.

Condition (b): Does the build alternative significantly increase traffic volumes above the No Action (No Project) Alternative volumes?

There would not be a significant increase in traffic volumes under the Proposed Project Alternative compared to the No Project Alternative. The projected traffic volumes are the same for both alternatives.

Condition (c): Does the build (proposed project) alternative improve traffic flow?

Yes, the proposed project improves traffic flow and reduces traffic delay compared to the No Project Alternative.

Because all three conditions are satisfied, the proposed project does not require a quantitative CO analysis. The proposed project would not cause or contribute to new localized CO violations or increase the severity or frequency of existing violations in the area affected by the project. Only project-level CO impacts were considered because regional air quality issues have already been addressed in the RTP and the RTIP analyses (Caltrans, 2011a).

**Operational Impacts, Toxic Air Contaminants.** The magnitude and the duration of potential increases and exposure to TACs of the No Project Alternative compared to the proposed project cannot be accurately quantified due to the inherent deficiencies of current

models. There is also a lack of a national consensus on an acceptable level of risk. Because of these uncertainties, a reliable quantitative assessment of air toxic emissions effects on human health cannot be made at the project level.

On a regional basis, EPA's and California's vehicle and fuel regulations, coupled with fleet turnover, will over time cause substantial reductions that, in almost all cases, will cause region-wide mobile source air toxics (MSAT) levels to be substantially lower than today. According to an FHWA analysis using EPA's MOBILE6.2 model, even if vehicle activity (vehicle miles traveled [VMT]) increases by 145%, as assumed, a combined reduction of 72% in the total annual emission rate for the priority MSATs is projected for the period from 1999 to 2050.

MSAT emissions analysis for the proposed project was performed using CT-EMFAC (v 4.1). The results are shown in Table 3.3-6. In general, the proposed project was estimated to result in higher emissions when compared to the No Project Alternative in 2015 and 2035. However, the level of increase in future MSAT emissions for the proposed project is anticipated to be smaller in 2035 than in 2015. The analysis also indicates that the MSAT emissions for both the Proposed Project Alternative and the No Project Alternative in 2015 or 2035 would be less than the existing (2010) conditions, except for emissions of naphthalene and polycyclic organic matter (POM) increasing in future years (Caltrans, 2011a).

**TABLE 3.3-6 MSAT EMISSIONS IN HORIZON YEAR (2035)**

	2010, Existing (g/day)*	2035, No-Build (g/day)	2035 Build			
			Emissions (g/day)	Δ from Existing**	Δ from No-Build	%Δ from No-Build
<b>Diesel PM</b>	24,839	10,640	11,433	-13,406	794	7.5
<b>DEOG</b>	41,293	21,059	21,257	-20,036	197	0.9
<b>Benzene</b>	10,276	3,624	3,731	-6,545	107	3.0
<b>Acrolein</b>	430	128	135	-295	6	5.0
<b>Formaldehyde</b>	11,871	4,781	4,906	-6,966	125	2.6
<b>1,3-Butadiene</b>	1,924	590	620	-1,304	29	4.9
<b>Naphthalene</b>	4,680	5,151	5,163	482	12	0.2
<b>POM</b>	639	723	725	86	2	0.3

\* Values calculated from interpolated 2008 data.  
\*\*Minus (-) sign denotes a decrease from existing or No-Project Alternative.

Source: Caltrans, 2011a

**AQ-4: The proposed project would not create objectionable odors affecting a substantial number of people.**

Objectionable odors would occur during project construction, mainly related to operation of diesel-powered equipment and to off-gas emissions during road-building activities, such as paving and asphaltting. These odors would be particularly noticeable during construction

work in the vicinity of sensitive receptors. Caltrans would comply with all SCAQMD rules, including Rule 1113 (Architectural Coatings) which limits the amount of VOC emissions from paving, asphalt, concrete curing and cement coatings operations (Caltrans, 2011a). These temporary odors would generally be limited to the project site and should dissipate rapidly. Operation of the proposed project would not result in significant impacts related to the creation of odors because of the following considerations: (1) project would not increase diesel truck traffic; (2) travel lanes would not be appreciably closer to receptors; and (3) project is expected to reduce congestion conditions.

### **3.3.5 Mitigation Measures**

#### **3.3.5.1 No Project Alternative**

While the No Project Alternative would be inconsistent with local government goals and policies for reduction of air quality emissions, it would not result in any air quality impacts under CEQA; therefore, no mitigation is required.

#### **3.3.5.2 Proposed Project Alternative**

The Proposed Project Alternative would not result in any air quality impacts under CEQA; therefore, no mitigation is required. This conclusion is reached knowing that the construction contractors must comply with all provisions of Caltrans' standard specifications, plus all applicable SCAQMD rules.

### **3.3.6 Level of Significance after Mitigation**

No mitigation is required because air quality impacts as assessed would be insignificant.

This page intentionally left blank.

### **3.4 Noise and Vibration**

This section has been prepared based upon the *Traffic Noise Study Report (NSR) (Environmental Re-Evaluation), Route 10 HOV Project, in Los Angeles County from Puente Avenue in Baldwin Park to State Route 57 in Pomona* (Caltrans, 2008a) and *Supplemental Traffic NSR, Route 10 HOV Project, from Route 605 to Route 10/57/210/71 Interchange, Forest Lawn Cemetery of Covina Hills* (Caltrans, 2004). This study was required to satisfy Caltrans' Traffic Noise Analysis Protocol (2006), which is based on FHWA noise regulations (23 Code of Federal Regulations [CFR] 772).

#### **3.4.1 Existing Conditions**

The existing noise environment is described in the following paragraphs. For a detailed discussion of fundamental traffic noise concepts, please refer to Caltrans' Technical Noise Supplement (TeNS) (Caltrans, 2009), a technical supplement to the Protocol, that is available on the Caltrans Web site ([http://www.dot.ca.gov/hq/env/noise/pub/tens\\_complete.pdf](http://www.dot.ca.gov/hq/env/noise/pub/tens_complete.pdf)).

##### **3.4.1.1 Existing Noise Levels**

A field investigation was conducted to identify frequent outdoor use areas that could be subject to traffic noise impacts. Multiple outdoor noise measurements were conducted throughout the study corridor to evaluate existing noise levels and to calibrate the computer noise model. Locations that are expected to receive the greatest traffic noise impacts, such as the first row of houses from the noise source, are generally chosen.

Specific measurement sites were chosen to be representative of receiver sites with similar topography, orientation to the highway, exposure angles, etc. Noise measurements were conducted in conformance with guidelines outlined in Caltrans' TeNS and FHWA's *Measuring of Highway Related Noise* (FHWA-PD-96-046). Noise monitoring was conducted using Metrosonics M3280 and Quest SoundPro DL models 2238 and 2250 sound level meters. Additional details of measurement procedures can be reviewed in the NSR.

Existing noise levels were recorded at 100 frequent human use area locations and modeled at 19 locations, which were acoustically representative of the entire area within the limits of the project. Figures showing the locations of noise receptors and noise measurement sites can be found in appendices to the technical reports.

The existing ambient noise levels measured were between 56 and 77 dBA. Twelve (12) long-term (i.e., 24-hour) noise level readings were conducted to determine the noisiest hour within the project limits. The community background noise levels were taken at 8 locations within the project limits and ranged from 44 to 60 dBA- $L_{eq}(h)$ . Results for the short- and long-term measurements for the general corridor are presented in the technical reports (see Chapter 6 tables of Traffic NSR and Table 1 of Supplemental Traffic NSR for Forest Lawn).

**3.4.1.2 Predicted Noise Levels**

Tables 3.4-1 and 3.4-2 summarize the traffic noise levels for existing conditions, as well as for both the design-year (2038) No Project Alternative and Proposed Project Alternative. Predicted Year 2038 traffic noise levels with the proposed project are compared to existing conditions (i.e., without the proposed project) and to the Year 2038 under the no project conditions. The comparison to existing conditions is included in the analysis to identify traffic noise impacts under 23 CFR 772. The comparison to no project conditions indicates the direct effects of the project. As stated in the TeNS, modeling results are rounded to the nearest decibel before comparisons are made.<sup>4</sup>

**TABLE 3.4-1 TRAFFIC NOISE,  $L_{EQ}(H)$ , PREDICTION SUMMARY (DBA)**

Receiver ID	Address	Land Use	Existing Noise Level (2011)	Year 2038 Noise Level without Project	Year 2038 Noise Level with Project	Year 2038 Noise Level with Project minus Existing Conditions	Year 2038 Noise Level with Project minus No Project Conditions
<b>EASTBOUND</b>							
A7	725 S. Orange Avenue	Hos	74.2	74.7	74.8	0.6	0.5
A8	850 S. Sunkist Avenue	Hos	69.9	71.1	69.9	0.0	1.2
A9	2134 Sienna Crest	Res	68.9	68.9	69.0	0.1	0.0
A10	1020 Willow Avenue	Res	75.6	75.6**	76.3	0.7	0.0
AM11*	Mossberg Avenue and Garvey Avenue	Res	---	75.8	75.8	0.9	0.9
A12	14624 Dalewood Street	Hot	64.8	65.5	64.9	0.1	0.7
A13	1304 Halinor Avenue	Res	62.6	64.2	63.9	1.3	1.6
AM13*	1305 Halinor Avenue	Res	---	67.4	67.4	1.6	1.6
B8	1601 West Covina Parkway	Lib	64.5	64.5**	64.5	0.0	0.0
C7	111 S. Ashdale Street	Res	67.1	67.1**	70.4	3.3	0.0
C8	105 S. Astell Avenue	Res	67.7	67.7**	68.3	0.6	0.0
C9	105 Gardenglen Street	Res	68.2	68.2**	68.2	0.0	0.0
C10	104 S. Turner Avenue	Res	68.5	68.8	69.1	0.6	0.3
DM4*	End of Homerest Avenue near off-ramp at Azusa Avenue	Res	---	67.1	65.9	0.3	1.5
DM5*	End of Homerest Avenue near off-ramp at Azusa Avenue	Res	---	69.0	67.6	0.5	1.9

<sup>4</sup> In some cases, this can result in relative changes that may not appear intuitive. An example would be a comparison between sound levels of 64.4 and 64.5 dBA. The difference between these two values is 0.1 dB; however, after rounding, the difference is reported as 1 dB.

**TABLE 3.4-1 TRAFFIC NOISE,  $L_{EQ}(H)$ , PREDICTION SUMMARY (DBA)**

Receiver ID	Address	Land Use	Existing Noise Level (2011)	Year 2038 Noise Level without Project	Year 2038 Noise Level with Project	Year 2038 Noise Level with Project minus Existing Conditions	Year 2038 Noise Level with Project minus No Project Conditions
D6	101 S. Fernwood Street	Res	70.8	70.8**	70.8**	0.0	0.0
D7	111 S. Fernwood Street	Res	63.7	63.7**	63.7**	0.0	0.0
D8	1532 E. Garvey Avenue	Res	73.2	73.2**	73.4	0.2	0.0
D9	101 S. Butterfield Road	Res	72.4	72.4**	73.1	0.7	0.0
F <sup>24</sup>	100 S Fircroft Street	Res	72.2	72.2**	74.0	1.8	0.0
F1	109 Baymar Street	Res	71.1	71.1**	71.1**	0.0	0.0
F2	106 Baymar Street	Res	74.4	74.4**	74.4**	0.0	0.0
F3	101 S Fircroft Street	Res	74.5	74.5**	75.9	1.4	0.0
FM1*	Backyard of home on E. James Avenue at E. Garvey Avenue and Hollenbeck Avenue	Res	---	69.6	71.2	1.6	0.0
F4	2340 E. Garvey Avenue S	Res	77.3	77.3**	77.3**	0.0	0.0
F5	110 S. Mockingbird Lane	Res	68.6	68.6**	68.6**	0.0	0.0
F6	2516 E. James Avenue	Res	66.4	66.4**	68.1	1.7	0.0
F7	2517 James Avenue	Res	66.6	66.6**	67.6	1.0	0.0
F8	2531 James Avenue	Res	63.6	63.6**	64.8	1.2	0.0
G <sup>24</sup>	3249 E. Drycreek Road	Res	66.3	66.3**	66.3**	0.0	0.0
G1	3030 E. Garvey Avenue S (McDonald's)	Com	69.9	69.9**	69.9**	0.0	0.0
G2	130 S. Barranca Street S	Res	61.6	61.6**	61.6**	0.0	0.0
G3	3047 Joy Street	Res	58.6	58.6**	58.6**	0.0	0.0
G9	2748 E. Garvey Avenue S	Res	66.9	66.9**	66.9	0.0	0.0
H1	3508 E. Temple Way	Church	72.4	74.2	74.9	2.5	1.8
H2	3601 E. Holt Avenue	Res	73.0	73.0**	73.0**	0.0	0.0
HM1*	3601 E. Holt Avenue	Res	73.9	74.5	75.2	1.3	0.6
I <sup>24</sup>	100 Buckboard Circle	Res	64.5	66.7	69.2	4.7	2.2
I1	3700 E. Garvey Avenue S	Res	68.1	68.1	68.3	0.2	0.0
I2M*	Backyard residence at Holt Avenue on-ramp to I-10 at E. Garvey Avenue	Res	66.6	66.8	67.7	1.1	0.2
I3	3800 E. Garvey Avenue S	Res	70.3	70.7	72.6	2.3	0.4
I4	112 Stagecoach Circle	Res	63.6	65.5	66.8	3.2	1.9
I5M*	Corner of Stagecoach Circle and E. Garvey Avenue S	Res	69.7	71.0	74.3	4.6	1.3

**TABLE 3.4-1 TRAFFIC NOISE, L<sub>EQ</sub>(H), PREDICTION SUMMARY (DBA)**

Receiver ID	Address	Land Use	Existing Noise Level (2011)	Year 2038 Noise Level without Project	Year 2038 Noise Level with Project	Year 2038 Noise Level with Project minus Existing Conditions	Year 2038 Noise Level with Project minus No Project Conditions
I6	111 Horseshoe Circle	Res	58.7	58.8	60.4	1.7	0.1
I7M*	20450 E. Garvey Avenue S	Res	67.4	67.4	68.9	1.5	0.0
I8	20529 Mesquite Lane	Res	56.5	56.5**	56.5**	0.0	0.0
L2	3801 W. Temple Avenue (Cal Poly University Pomona)	Res	61.2	61.2**	61.2**	0.0	0.0
L3	3801 W. Temple Avenue (Cal Poly University Pomona)	Res	64.9	64.9**	64.9**	0.0	0.0
<b>WESTBOUND</b>							
A <sup>24</sup>	2310 Havenbrook Street	Res	69.6	70.4	70.4	0.8	0.8
A1	14510 Garvey Avenue	Motel	63.0	63.0**	63.0**	0.0	0.0
A2	14635 N. Garvey Avenue	Hotel	67.5	70.1	68.8	1.3	2.6
A3	2320 W. Havenbrook Street	Res	72.0	73.2	73.3	1.3	1.2
A4	2212 W. Havenbrook Street	Res	69.7	70.7	71.2	1.5	1.0
A5	2133 W. Garvey Avenue	School	67.8	67.8**	67.8**	0.0	1.1
A6	2000 W. Pacific Avenue	Res	68.5	70.4	69.7	1.2	1.9
A14	2301 W. Cedarwood Street	Res	65.2	65.3	65.3	0.1	0.3
AM15*	Near 2005 W. Garvey Avenue	School	---	78.1	78.1	0.2	0.2
B <sup>24</sup>	105 Poxon Place	Res	72.4	72.4**	74.2	1.8	2.0
B1	1637 N. Garvey Avenue	Motel	76.7	76.7**	76.7**	0.0	1.9
MB2*	Near 1437 W. Garvey Avenue	Motel	---	80.1	81.3	1.7	0.5
B3	1333 Garvey Avenue	Res	77.5	77.5**	77.5**	0.0	2.0
B4	111 N. Morada Avenue	Res	76.2	76.2**	76.2**	0.0	2.9
B5	124 Hartley Street	Res	66.2	66.2**	67.6	1.4	1.2
B6	1015 Garvey Street	Res	67.0	67.0**	68.4	1.4	2.2
B7	1001 W. Garvey Street	Res	63.2	63.2**	63.2**	0.0	2.0
C <sup>24</sup>	1230 E. Mardina Street	Res	74.0	74.0**	74.0**	0.0	0.0
C1	128 Maplewood Avenue	Res	66.5	66.5**	66.5**	0.0	0.0
C2	118 Maplewood Avenue	Res	71.1	71.1**	71.1**	0.0	0.0
C3	1139 E. Garvey Avenue	Res	76.1	76.1**	76.1**	0.0	0.0
CM4*	Corner of Mardina Street	Res	---	71.2	71.12	0.7	0.8

**TABLE 3.4-1 TRAFFIC NOISE,  $L_{EQ}(H)$ , PREDICTION SUMMARY (DBA)**

Receiver ID	Address	Land Use	Existing Noise Level (2011)	Year 2038 Noise Level without Project	Year 2038 Noise Level with Project	Year 2038 Noise Level with Project minus Existing Conditions	Year 2038 Noise Level with Project minus No Project Conditions
	and Toland Avenue						
C5	1320 E. Mardina Street	Res	75.5	75.5**	75.7	0.2	0.0
C6	101 N. Lark Ellen Avenue	Res	70.6	70.6**	73.5	2.9	0.0
C11	1408 E. Mardina Street	Res	69.6	70.1	69.9**	-0.1	0.5
C12	1506 E. Mardina Street	Res	71.1	71.6	71.5	0.4	0.5
D <sup>24</sup>	1626 E. Mardina Street	Res	72.0	72.0**	72.0**	0.0	0.0
D2	1639 Mardina Street	Res	64.3	64.3**	64.3**	0.0	0.0
D3	1730 E. Mardina Street	Res	72.3	72.3**	72.3**	0.0	0.0
E <sup>24</sup>	2327 E. Garvey Avenue N	Res	70.0	70.0**	70.4	0.4	1.4
E1	1909 E. Garvey Avenue N	Res	72.9	72.9**	72.9**	0.0	0.5
E2	121 Baymar Avenue	Res	62.7	62.7**	64.7	2.0	0.4
E3	2033 Garvey Avenue	Res	74.4	74.4**	74.4**	0.0	0.6
E4	2123 Garvey Avenue	Res	71.5	71.5**	72.0	0.5	0.7
E5	2047 E. Garvey Avenue	Res	71.6	71.6**	71.6**	0.0	0.5
E6	2309 E. Garvey Avenue N	Res	74.3	74.3**	75.1	0.8	0.5
E7	121 N. Meadow Road	Res	61.2	61.6	61.8	0.6	0.4
E8	2359 E. Garvey Avenue	Res	69.1	69.1**	69.2	0.1	0.8
E9	2451 E. Garvey Avenue	School	70.3	70.3**	70.3**	0.0	0.8
G4	3145 E. Garvey Avenue N	Res	66.9	66.9**	66.9**	0.0	0.0
G5	3223 E. Garvey Avenue N	Res	71.5	71.5**	71.5**	0.0	0.0
G6	3275 E. Garvey Avenue N	Res	70.2	70.2**	70.2**	0.0	0.0
G7	101 N. Barranca Street (Starbucks)	Com	68.8	68.8**	68.8**	0.0	0.0
G8	143 N. Barranca Street (Starbucks)	Com	67.6	67.6**	67.6**	0.0	0.0
H <sup>24</sup>	3553 E. Miriam Drive	Res	62.0	64.8	72.8	10.8	2.8
H3	1211 E. Garvey Street	Res	72.7	72.7	72.7**	0.0	0.0
H4	2576 E. Craiglee Circle	Res	59.2	60.0	60.7	1.5	0.8
H5	3501 E. Hillhaven Drive	Res	60.1	62.0	65.6	5.5	1.9
H6	3421 E. Miriam Drive	Res	70.4	70.4	74.1	3.7	0.0
J <sup>24</sup>	20564 Exbury Place	Res	67.5	68.5	69.5	2.0	1.0
J1	1580 E. Via Verde Street	Res	61.4	61.4**	61.4**	0.0	0.0
J2	1580 E. Via Verde Street	Res	66.7	66.7**	66.7**	0.0	0.0

**TABLE 3.4-1 TRAFFIC NOISE,  $L_{EQ}(H)$ , PREDICTION SUMMARY (DBA)**

Receiver ID	Address	Land Use	Existing Noise Level (2011)	Year 2038 Noise Level without Project	Year 2038 Noise Level with Project	Year 2038 Noise Level with Project minus Existing Conditions	Year 2038 Noise Level with Project minus No Project Conditions
JM1*	South of Exbury Place next to I-10	Res	73.6	73.6	73.9	0.3	0.0
JM2*	20768 E. Via Verde Street	Res	72.1	72.1	72.9	0.8	0.0
J3	20832 E. Via Verde Street	Res	75.5	75.5	76.5	1.0	0.0
JM3*	In rear of homes located on Via Verde Street adjacent to I-10	Res	64.4	64.7	66.6	2.2	0.3
JM4*	In rear of homes located on Via Verde Street adjacent to I-10	Res	64.2	64.3	69.2	5.0	0.1
JM5*	20930 E. Via Verde Street	Res	71.4	71.5	72.8	1.4	0.1
J4	21163 E. Via Verde Street	Res	69.4	69.4**	69.4**	0.0	0.0
J5	21101 E. Terry Way	Res	65.2	65.2**	65.2**	0.0	0.0
J6	21245 E. Via Verde Street	Res	66.4	66.4**	66.4**	0.0	0.0
JM6*	21355 E. Via Verde Street	Res	64.3	64.3	64.6	0.3	0.0
K <sup>24</sup>	21554 Covina Hills Road	Res	64.4	64.4**	64.4**	0.0	0.0
K1	21434 E. Via Verde Street	Res	63.9	63.9**	63.9**	0.0	0.0
K2	21436 E. Covina Hills Road	Res	69.9	69.9**	69.9**	0.0	0.0
K3	21542 E. Covina Hills Road	Res	63.4	63.4	63.8	0.4	0.0
KM1*	Backyard of house on E Covina Hills Road	Res	62.4	62.4	63.3	0.9	0.0
K4	2335 Via Fresa	Res	67.4	67.4	67.6	0.2	0.0
K5	2457 Via Mariposa	Res	66.2	66.2	67.8	1.6	0.0
L <sup>24</sup>	2499 Via Mariposa	Res	67.2	68.7	70.3	3.1	1.5
L1	1030 Via Romales	Res	60.2	60.2	60.5	0.3	0.0

<sup>24</sup> = 24-hour noise measurement site  
\* Modeled Site  
\*\*Future Noise Level is adjusted to existing worst-hour noise level because TNM model predicted noise level is less than existing worst-hour noise level  
Res = Residential; Com= Commercial; Hos = Hospital; Lib = Library

**TABLE 3.4-2 TRAFFIC NOISE,  $L_{EQ}(H)$ , PREDICTION SUMMARY (DBA)  
 AT FOREST LAWN MEMORIAL PARK CEMETERY<sup>5</sup>**

Site #	Existing Noise Level [dBA- $L_{eq}(h)$ ]	Predicted Noise Level [dBA- $L_{eq}(h)$ ]	Noise Increase (dBA)
1	71.8	74.7	2.9
2	75.6	78.8	3.2
3*	67.3	---	---
4	77.0	80.2	3.2
5*	56.7	---	---
6	64.4	66.1	1.7

\*Note: Site is more than 500 feet away from freeway – out of validity range for computer software.

### 3.4.2 Regulatory Requirements

Regulatory requirements applicable to the proposed project as assessed in this DEIR are described below.

#### **California Environmental Quality Act**

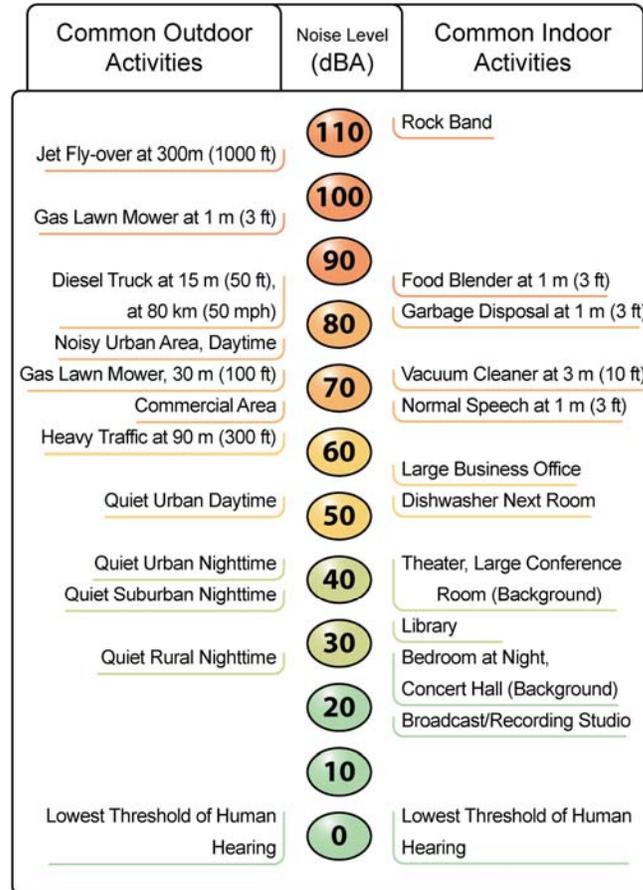
In California, CEQA provides the broad basis for analyzing and abating highway traffic noise effects. The intent of CEQA is to promote general welfare and to foster a healthy environment.

CEQA requires a strictly baseline-versus-build analysis to assess whether a proposed project will have a noise impact. If a proposed project is determined to have a significant noise impact under CEQA, then CEQA dictates that mitigation measures must be incorporated into the project unless such measures are not feasible.

Figure 3.4-1 lists the noise levels of common activities to enable readers to compare the actual and predicted highway noise-levels discussed in this section with common activities.

In accordance with Caltrans' *Traffic Noise Analysis Protocol for New Highway Construction, Reconstruction, and Retrofit Barrier Projects, May 2011*, a noise impact occurs when the future noise level with the project results in a substantial increase in noise level. If it is determined that the project will have noise impacts, then potential abatement measures must be considered. Noise abatement measures that are determined reasonable and feasible at the time of final design are incorporated into the project plans and specifications. This document discusses noise abatement measures that would likely be incorporated in the project.

<sup>5</sup> A Supplemental Traffic Noise Study Report was prepared by Caltrans in 2004 to assess potential traffic noise impacts, and to determine the feasibility of traffic noise abatement for any location with impacts. The report concludes that the cemetery is not considered a frequent human use area that would benefit from a lowered noise level.



**Figure 3.4-1  
Noise Levels of Common Activities**

The Caltrans’ *Traffic Noise Analysis Protocol* sets forth the criteria for determining when an abatement measure is feasible and reasonable. The feasibility of a noise abatement measure is primarily an acoustical criterion. A minimum 5-dB reduction in the future noise level must be achieved for an abatement measure to be considered feasible. The reasonableness determination is basically a cost-benefit analysis. Factors used in determining whether a proposed noise abatement measure is reasonable include residents’ acceptance, the absolute noise level, build versus existing noise, environmental impacts of abatement, public and local agencies input, newly constructed development versus development pre-dating 1978, and the cost per benefited residence.

**23 CFR 772**

Caltrans’ *Traffic Noise Analysis Protocol for New Highway Construction, Reconstruction, and Retrofit Barrier Projects* is based heavily on Title 23, CFR Part 772. 23 CFR 772, Procedures for Abatement of Highway Traffic Noise and Construction Noise, defines Activity Categories and their respective Noise Abatement Criteria (NAC). Several changes have been made to Table 1, Activity Categories and Noise Abatement Criteria. Additional Activity Categories have been added and more activities have been added to the Description

of Activities previously listed. For example, the NAC for exterior noise levels at hotels and motels was previously 67 dBA- $L_{eq}(h)$ . With the revised 23 CFR 772, the NAC for exterior noise levels at hotels and motels is now 72 dBA- $L_{eq}(h)$ . Previously, cemeteries were not specifically identified in Table 1 and, as a result, the applicable NAC was subject to interpretation. Now, cemeteries are specifically listed as Activity Category C with an exterior NAC of 67 dBA- $L_{eq}(h)$ .

### 3.4.3 Significance Criteria

Criteria for determining the significance of impacts related to the noise environment are based on the CEQA Guidelines, Appendix G – Environmental Checklist. Impacts from the proposed project would be considered significant under the following circumstances:

**NOI-1:** Exposure of persons to, or generation of, noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.

**NOI-2:** Exposure of persons to generation of excessive groundborne vibration or groundborne noise levels.

**NOI-3:** Result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project.

**NOI-4:** Result in a temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project.

### 3.4.4 Impacts

#### 3.4.4.1 No Project Alternative

There would be no construction under the No Project Alternative; therefore, no construction noise impacts would occur.

Under the No Project Alternative, there would be no improvements to I-10. Therefore, noise level increases or decreases as a result of the proposed project would not occur; however, freeway traffic along I-10 would continue to increase at the natural growth rate. Modeling results, shown in Table 3.4-1, indicate that predicted traffic noise levels ( $L_{eq}[h]$ ) within the project study area for the year 2038 without the proposed project would increase up to 2.9 dBA. Based on this information, under the No Project Alternative, sensitive receptors along the subject I-10 corridor would not be impacted by traffic noise.<sup>6</sup>

#### 3.4.4.2 Proposed Project Alternative

**Impact NOI-1: The proposed project may expose persons to, or result in generation of, noise levels in excess of standards published in the local general plan or noise ordinance, or applicable standards of other agencies.**

---

<sup>6</sup> A noise increase of less than 3 dB is not considered an impact.

**Construction.** During the construction phases of the project, noise from construction activities may intermittently dominate the noise environment in the immediate area of construction.

Table 3.4-3 summarizes noise levels produced by construction equipment commonly used on roadway construction projects. As indicated, equipment involved in construction is expected to generate noise levels ranging from 80 to 89 dBA at a distance of 50 feet. Noise produced by construction equipment is typically reduced over distance at a rate of approximately 6 dBA per doubling of distance.

**TABLE 3.4-3 CONSTRUCTION EQUIPMENT NOISE**

Equipment	Maximum Noise Level (dBA at 50 feet)
Scrapers	89
Bulldozers	85
Heavy Trucks	88
Backhoe	80
Pneumatic Tools	85
Concrete Pump	82

*Source: FTA, 2006.*

Construction noise is regulated by Caltrans' Standard Specifications, Section 7-1.011, Sound Control Requirements. The specifications state that noise levels generated during construction shall comply with applicable local, state, and federal regulations and that all equipment shall be fitted with adequate mufflers according to the manufacturers' specifications. There are many standard construction procedures that would be included in the project specifications to minimize intrusion without placing unreasonable constraints on the construction process or substantially increasing costs. The following are possible control measures that can be implemented to minimize noise and vibration disturbances at sensitive areas during construction:

1. Use newer equipment with improved noise muffling and ensure that all equipment items have the manufacturers' recommended noise abatement measures, such as mufflers, engine covers, and engine vibration isolators, intact and operational. Newer equipment will generally be quieter in operation than older equipment. All construction equipment should be inspected at periodic intervals to ensure proper maintenance and presence of noise control devices (e.g., mufflers and shrouding).
2. Perform all construction in a manner that minimizes noise and vibration. Utilize construction methods or equipment that will provide the lowest level of noise and ground vibration impact.
3. Perform independent noise and vibration monitoring to demonstrate compliance with applicable noise limits, especially in particularly sensitive areas. Require contractors

- to modify and/or reschedule their construction activities if monitoring determines that maximum limits are exceeded at residential land uses.
4. Conduct truck loading, unloading, and hauling operations so that noise and vibration are kept to a minimum by carefully selecting routes to avoid passing through residential neighborhoods to the greatest possible extent.
  5. Turn off idling equipment.
  6. Minimize construction activities during evening, nighttime, weekend, and holiday periods.
  7. The construction contractor should be required by contract specification to comply with the City noise ordinances and obtain all necessary permits, particularly in relation to nighttime construction work.
  8. When possible, limit the use of construction equipment that creates high vibration levels, such as vibratory rollers and hammers. When such equipment must be used within 25 feet of any existing building, select equipment models that generate lower vibration levels.
  9. Restrict the hours of vibration-intensive equipment or activities, such as vibratory rollers, so that annoyance to residents is minimal (e.g., limit to daytime hours as defined in the noise ordinance).

With implementation of the specifications, no adverse noise impacts from temporary construction activities are anticipated.

**Operation.** The CEQA noise analysis entails looking at the setting of the noise impact and then how large or perceptible any noise increase would be in the given area. Key considerations include the uniqueness of the setting, the sensitive nature of the noise receptors, the magnitude of the noise increase, the number of residences affected, and the absolute noise level. For the purposes of CEQA analysis, a change in future noise conditions is not considered perceptible unless the increase is 5 dBA or greater.

Operation of the proposed project would result in a slight increase in noise at some adjacent uses due to the freeway widening bringing traffic noise closer to sensitive noise receptors. Additional noise would also be created by the higher speeds of vehicles traveling in the HOV lanes and an incremental increase in freeway speeds in the general purpose lanes due to the reduction in congestion. As detailed in the *Traffic NSR (Environmental Re-Evaluation), Route 10 HOV Project, in Los Angeles County from Puente Avenue in Baldwin Park to State Route 57 in Pomona*, existing noise levels range from 57 to 78 dBA and are primarily due to freeway noise. The proposed project would increase noise levels up to 3 dBA compared to existing conditions. This increase is below the above-mentioned threshold of 5 dBA.

Modeling results, as shown in Table 3.4-1, show that the difference between predicted traffic noise levels ( $L_{eq}[h]$ ) for the Proposed Project Alternative and No Project Alternative would

be a maximum of 1 dBA in noise level; therefore, it can be concluded that under CEQA the project itself would not result in noise impacts to the surrounding area.

However, Caltrans is required to incorporate noise abatement measures into the proposed project because the predicted traffic noise levels in Year 2038 would approach or exceed the NAC of 67 dBA for Activity Category B land uses. Hence, NEPA noise impacts from freeway traffic are predicted to occur under the proposed project.

In accordance with 23 CFR 772, noise abatement is considered where traffic noise impacts are predicted in areas of frequent human use that would benefit from a lowered noise level. Potential noise abatement measures identified in the Protocol include:

- Avoiding the impact by using design alternatives, such as altering the horizontal and vertical alignment of the project;
- Constructing noise barriers;
- Acquiring property to serve as a buffer zone;
- Using traffic management measures to regulate types of vehicles and speeds; and
- Acoustically insulating public-use or nonprofit institutional structures.

All of these abatement options were considered in the *Traffic NSR (Environmental Re-Evaluation), Route 10 HOV Project, in Los Angeles County from Puente Avenue in Baldwin Park to State Route 57 in Pomona*; however, because of the configuration and location of the project, abatement in the form of noise barriers is the only abatement that is considered to be feasible. Soundwalls would therefore be constructed where determined to be reasonable and feasible to reduce existing traffic noise levels at frequent outdoor use areas. The general locations of these soundwalls are shown in Appendix E. The final soundwall locations, heights, and lengths would be determined during final design.

The analysis was conducted with barrier heights ranging from 8 to 16 feet. The barrier heights and locations were evaluated to determine if a minimum 5-dB attenuation at the outdoor frequent use areas of the representative receivers could be achieved. The results are summarized in Table 3.4-4. No soundwalls were recommended for Forest Lawn Memorial Park Cemetery because analyzed soundwalls along the I-10 ROW and edge-of-shoulder were determined to be acoustically not feasible and/or not cost effective. In addition, based on the number of daily funeral services and visitations, as well as their durations, in general, the cemetery is not considered as a frequent human use area that would benefit from lowered noise levels (Caltrans, 2004).

**TABLE 3.4-4 SUMMARY OF SOUNDWALL EVALUATION**

<b>Soundwall Number</b>	<b>Location of Soundwall</b>	<b>Number of Benefited Receptors*</b>	<b>Height Range of Soundwalls/Total Length (ft)</b>	<b>Additional Soundwall Details</b>
SW 1758	From Puente Avenue to Garvey Avenue off-ramp (south side of I-10)	4	8-16 / 685	Location: Stations 1758+17 to 1765+02. Minimum Barrier Height to Achieve 5 dBA Reduction: – Height: 8 ft – Receptors abated : 4
SW 1770	From Garvey Avenue on-ramp to Sunkist Avenue (south side of I-10)	6-26	8-16 / 3,664	Location: Stations 1769+36 to 1806+00. Minimum Barrier Height to Achieve 5 dBA Reduction: – Height: 8 ft – Receptors abated : 6
SW 1775	Along Garvey Avenue to Sunkist Avenue (north side of I-10)	11-23	12-16 / 2,327	Location: Stations 1774+93 to 1798+20. Minimum Barrier Height to Achieve 5 dBA Reduction: – Height: 12 ft – Receptors abated : 11
SW 1805	From Sunkist Avenue to Pacific Avenue (north side of I-10)	16-20	8-16 / 1,021	Location: Stations 1804+23 to 1814+44. Minimum Barrier Height to Achieve 5 dBA Reduction: – Height: 8 ft – Receptors abated :16
SW 1831	North Roberto Avenue to Sunset Avenue (north side of I-10)	8-16	8-16 / 834	Location: Stations 1831+60 to 1839+94. Minimum Barrier Height to Achieve 5 dBA Reduction: – Height: 8 ft – Receptors abated : 8
SW 1847	Sunset Avenue to Vincent Avenue (north side of I-10)	25-33	8-16 / 2,262	Location: Stations 1845+78 to 1868+40. Minimum Barrier Height to Achieve 5 dBA Reduction: – Height: 8 ft – Receptors abated : 25
SW 1871	Vincent Avenue to Lark Ellen Avenue (north side of I-10)	18-45	10-16 / 3,392	Location: Stations 1870+67 to 1904+59. Minimum Barrier Height to Achieve 5 dBA Reduction: – Height: 10 ft – Receptors abated :18
SW 1888	Glendora Avenue at Garvey Avenue to Azusa Avenue off-ramp (south side of I-10)	11-36	10-16 / 3,477	Location: Stations 1887+80 to 1922+57. Minimum Barrier Height to Achieve 5 dBA Reduction: – Height: 10 ft – Receptors abated : 11

**TABLE 3.4-4 SUMMARY OF SOUNDWALL EVALUATION**

<b>Soundwall Number</b>	<b>Location of Soundwall</b>	<b>Number of Benefited Receptors*</b>	<b>Height Range of Soundwalls/Total Length (ft)</b>	<b>Additional Soundwall Details</b>
SW 1899	Lark Ellen Avenue to Azusa Avenue (north side of I-10)	26-34	12-16 / 2,690	Location: Stations 1899+00 to 1925+90. Minimum Barrier Height to Achieve 5 dBA Reduction: – Height: 12 ft – Receptors abated : 26
SW 1935	Azusa Avenue off-ramp to Hollenbeck Street (north side of I-10)	19-42	14-16 / 1,804	Location: Stations 1934+36 to 1952+40. Minimum Barrier Height to Achieve 5 dBA Reduction: – Height: 12 ft – Receptors abated : 19
SW 1946	Baymar Avenue to Fircroft Street (south side of I-10)	3-38	8-16 / 1,795	Location: Stations 1945+05 to 1963+00. Minimum Barrier Height to Achieve 5 dBA Reduction: – Height: 8 ft – Receptors abated : 3
SW 1959	Along Garvey Avenue from Hollenbeck Street to Meadow Road (north side of I-10)	12-14	12-16 / 434	Location: Stations 1958+66 to 1963+00. Minimum Barrier Height to Achieve 5 dBA Reduction: – Height: 12 ft – Receptors abated : 12
SW 1963	Fircroft Street to Citrus Street (south side of I-10)	3-38	8-16 / 1,640	Location: Stations 1963+00 to 1979+40. Minimum Barrier Height to Achieve 5 dBA Reduction: – Height: 8 ft – Receptors abated : 3
SW 1964	Along Garvey Avenue at Meadow Road to Citrus Street (north side of I-10)	12-14	12-16 / 1,120	Location: Stations 1963+00 to 1974+20. Minimum Barrier Height to Achieve 5 dBA Reduction: – Height: 12 ft – Receptors abated : 12
SW 2018	In front of hotel along Garvey Avenue west of Grand Avenue (north side of I-10)	3-5	8-16 / 1,147	Location: Stations 2018+38 to 2029+85. Minimum Barrier Height to Achieve 5 dBA Reduction: – Height: 8 ft – Receptors abated : 3
SW 2037	Grand Avenue along Temple Way (south side of I-10)	12-25	8-16 / 501	Location: Stations 2044+79 to 2049+80. Minimum Barrier Height to Achieve 5 dBA Reduction: – Height: 8 ft – Receptors abated : 12

**TABLE 3.4-4 SUMMARY OF SOUNDWALL EVALUATION**

<b>Soundwall Number</b>	<b>Location of Soundwall</b>	<b>Number of Benefited Receptors*</b>	<b>Height Range of Soundwalls/Total Length (ft)</b>	<b>Additional Soundwall Details</b>
SW 2049	Along I-10 and Temple Way (south side of I-10)	12-25	8-16 / 488	Location: Stations 2049+80 to 2054+68. Minimum Barrier Height to Achieve 5 dBA Reduction: – Height: 8 ft – Receptors abated: 12
SW 2052	From Forest Hills Drive along Garvey Avenue (north side of I-10)	14-23	8-16 / 546	Location: Stations 2051+16 to 2056+62. Minimum Barrier Height to Achieve 5 dBA Reduction: – Height: 8 ft – Receptors abated : 14
SW 2055	Adjacent to Holt Avenue on-ramp (south side of I-10)	6-16	10-16 / 207	Location: Stations 2058+47 to 2060+54. Minimum Barrier Height to Achieve 5 dBA Reduction: – Height: 10 ft – Receptors abated : 6
SW 2056	Adjacent to I-10 along Holt Avenue on-ramp (north side of I-10)	14-23	8-16 / 219	Location: Stations 2056+00 to 2058+19. Minimum Barrier Height to Achieve 5 dBA Reduction: – Height: 8 ft – Receptors abated : 14
SW 2059	Along Holt Avenue on-ramp (south side of I-10)	6-16	10-16 / 170	Location: Stations 2063+30 to 2065+00. Minimum Barrier Height to Achieve 5 dBA Reduction: – Height: 10 ft – Receptors abated : 6
SW 2060	Along Holt Avenue on-ramp (north side of I-10)	14-23	8-16 / 132	Location: Stations 2060+64 to 2061+96. Minimum Barrier Height to Achieve 5 dBA Reduction: – Height: 8 ft – Receptors abated : 14
SW 2063	East of Holt Avenue along Garvey Avenue to east of Horseshoe Circle (south side of I-10)	6-16	10-16 / 2,195	Location: Stations 2064+95 to 2086+90. Minimum Barrier Height to Achieve 5 dBA Reduction: – Height: 10 ft – Receptors abated : 6
SW 2074	Holt Avenue off-ramp to Via Verde Street (north side of I-10)	2-3	10-16 / 2,475	Location: Stations 2074+25 to 2099+00. Minimum Barrier Height to Achieve 5 dBA Reduction: – Height: 10 ft – Receptors abated : 2
SW 2118	East of Roycove Drive along Via Verde Street (north side of I-10)	6-8	12-16 / 1,055	Location: Stations 2117+50 to 2128+05. Minimum Barrier Height to Achieve 5 dBA Reduction: – Height: 12 ft – Receptors abated : 6

**TABLE 3.4-4 SUMMARY OF SOUNDWALL EVALUATION**

<b>Soundwall Number</b>	<b>Location of Soundwall</b>	<b>Number of Benefited Receptors*</b>	<b>Height Range of Soundwalls/Total Length (ft)</b>	<b>Additional Soundwall Details</b>
SW 2128	Immediately adjacent to I-10 west of The Mall (north side of I-10)	6-8	12-16 / 628	Location: Stations 2128+05 to 2134+33. Minimum Barrier Height to Achieve 5 dBA Reduction: – Height: 12 ft – Receptors abated : 6
SW 2134	Immediately adjacent to I-10 west of The Mall (north side of I-10)	6-8	12-16 / 288	Location: Stations 2133+00 to 2135+88. Minimum Barrier Height to Achieve 5 dBA Reduction: – Height: 12 ft – Receptors abated : 6
SW 2140	East of The Mall immediately adjacent to I-10 (north side of I-10)	6-8	12-16 / 551	Location: Stations 2137+49 to 2143+00. Minimum Barrier Height to Achieve 5 dBA Reduction: – Height: 12 ft – Receptors abated : 6
SW 2142	Along Via Verde Street east of The Mall immediately adjacent to I-10 (north side of I-10)	3-11	10-16 / 265	Location: Stations 2143+00 to 2145+65. Minimum Barrier Height to Achieve 5 dBA Reduction: – Height: 10 ft – Receptors abated : 3
SW 2148	Along Via Verde Street to Via Romales immediately adjacent to I-10 (north side of I-10)	3-11	10-16 / 1,697	Location: Stations 2148+40 to 2165+37 Minimum Barrier Height to Achieve 5 dBA Reduction: – Height: 10 ft – Receptors abated : 3

\*The number of benefited receptors is based on the 2009 Noise Study Report and does not represent changes to soundwalls since that report. Therefore, these may have changed slightly due to changes to soundwalls.

Source: Noise Study Report, Caltrans 2008 and Revised Engineering Drawings, Caltrans 2011.

During the design phase, changes to recommended noise abatement may occur. These changes may be required due to constructability, safety, or cost issues. However, these changes do not necessarily require a re-evaluation of the noise abatement. A re-evaluation of noise abatement is required when the scope of the project changes, such as vertical and horizontal alignment change, addition or deletion of lanes, or addition or removal of shielding.

**Impact NOI-2: The proposed project is not expected to expose persons to generation of excessive groundborne vibration or groundborne noise levels.**

Construction activity can result in varying degrees of ground vibration, depending on the equipment and methods used. The operation of construction equipment causes vibrations that spread through the ground and diminish in strength with traveled distance. Buildings in the vicinity of construction sites can be affected by these vibrations, with resulting damage in the most severe cases. Vibratory rollers and impact pile driving would be the most dominant sources of overall construction vibration for the proposed project. The vibration levels created by the normal movement of vehicles, including graders, front loaders, and backhoes, are comparable in order-of-magnitude to groundborne vibrations created by heavy vehicles traveling on streets and highways.

Building damage can be cosmetic or structural. Normal buildings that are not particularly fragile would not experience any cosmetic damage (e.g., plaster cracks) at distances beyond 25 feet based on typical construction equipment vibration levels. This distance can vary substantially depending on the soil composition between vibration source and receiver. There are many standard construction procedures that would be included in project specifications to minimize intrusion without placing unreasonable constraints on the construction process or substantially increasing costs.

Regarding facility operation, significant vibration impact from rubber-tire-fitted vehicles is extremely rare. Rubber-tire-fitted vehicles are typically well isolated by the vehicle suspension design, and tires also act as a highly effective barrier to vibration transmission from the vibration-generating carriage and the main propagation medium for vibration excitation (i.e., the ground); therefore, potential vibration impacts from traffic on the freeway can be reasonably dismissed. It is possible that there could be slight vibration issues at residences close to the traveled way if there are cracks, uneven slabs, and/or damaged expansion joints. Given the above considerations, the proposed project would not result in substantial levels of vibration.

**Impact NOI-3: The proposed project is not expected to result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project.**

The proposed project with soundwall abatement is not expected to result in a substantial permanent ambient noise increase above levels existing without the project at frequent outdoor use areas. For more details, see response to Impact NOI-1, Operations.

**Impact NOI-4: The proposed project may result in a temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project.**

Equipment involved in construction is expected to generate noise levels ranging from 80 to 89 dB at a distance of 50 feet. Noise produced by construction equipment would be reduced at a rate of approximately 6 dB per doubling of distance from the source. Measures would be applied during construction to reduce short-term noise disturbances at sensitive receptors. These include, but are not limited to, using equipment with noise mufflers in good condition; applying construction methods and using equipment that would provide the lowest level of noise impact; turning off idling equipment; and using temporary noise barriers, as needed. For more details, see response to Impact NOI-1, Construction.

### **3.4.5 Mitigation Measures**

#### **3.4.5.1 No Project Alternative**

The No Project Alternative would not result in any impacts under CEQA; therefore, no mitigation is required.

#### **3.4.5.2 Proposed Project Alternative**

With the proposed soundwalls to abate future traffic noise described in this section of the DEIR, no further avoidance, minimization, and mitigation measures would be required.

### **3.4.6 Level of Significance after Mitigation**

No mitigation is required.

### 3.5 Biological Resources

Implementation of the proposed project would change existing conditions adjacent to I-10. This section presents those existing conditions and the evaluation of likely consequences to biological resources attributable to construction of HOV lanes between Puente Avenue and the SR 57/SR 71 interchange. Possible biological effects are compared with changes likely to result from the No Project Alternative. Information presented is drawn from the *Natural Environment Study (NES)* (Minimal Impacts) conducted for this project in July 2011. Previous studies completed for this resource area include the *Natural Environmental Study Report (NESR) Reevaluation* (September 2000), the *Natural Environment Study Report Provide High Occupancy Vehicle Lanes on Interstate 10 Between Puente and Citrus Avenues in Los Angeles County 07-LA-10-33.4/37.5* (January 1995), and the *I-10 High Occupancy Vehicle Lanes Project 07H003 Segment 3 Biological Resources Technical Report* (January 1995).

Three surveys were conducted by a senior terrestrial ecologist with more than 17 years of experience in qualitative and quantitative characterization of southern California biomes and communities. Existing conditions were determined by walking parts of the project area on May 18 and June 7, 2011, and by windshield surveys with stops at appropriate vantage points on June 7 and June 29, 2011. The I-10 biological study area (BSA) extends 105 feet to either side from the midline of the existing freeway. At locations where loop ramps convey traffic on or off the freeway, the BSA was enlarged to overlap the interiors and outside margins of those loops because these are places where various plant species of potential interests occur. Toward the eastern end of the proposed project, the study area was asymmetrically wider to the south side to account for proposed cut and fill slopes into existing embankments to be supported by retaining walls. Parts of the freeway and loop ramps were examined from safe vantage points with binoculars (10x).

The California Native Plant Society's (CNPS) Inventory of Rare and Endangered Vascular Plants of California and the California Department of Fish and Game's (CDFG) California Natural Diversity Database (CNDDDB) were reviewed prior to the field survey to identify special-status plants, wildlife, and habitats known to occur in the vicinity of the survey area.

The biological survey was conducted to assess the biological conditions of the site, inventory the wildlife habitat and vegetation types, and evaluate the site's potential to support special-status plant and wildlife species within the survey area. Plant species were identified in the field. Taxonomy follows Hickman (1993) and Munz (1974) and current scientific data (e.g., scientific journals) for scientific and common names. The *Sunset Western Garden Book* (Brenzel, 2001) was used for ornamental species that were not included in the references listed above.

### 3.5.1 Existing Conditions

#### 3.5.1.1 Urban Development

I-10 carries a tremendous volume of vehicular traffic through very densely inhabited parts of greater Los Angeles. Interchanges that join it with local major surface roads (e.g., Pacific Avenue/West Covina Parkway, Azusa Avenue, Grand Avenue) expedite commuter access to I-10 from the residential suburbs along its route. From approximately Grand Avenue westward to Puente Avenue, all of the study area can be characterized as thoroughly developed urban environs. Land use combines residential with commercial and transportation needs entirely; no biotic communities native to the general region remain anywhere in the western part of the study area. The land slopes very gradually downhill westward toward the San Gabriel River.

East of Grand Avenue, I-10 ascends a shoulder on the northern side of the San Jose Hills, locally known as Kellogg Hill. Residential development is comparatively less dense around Kellogg Hill, in part because residential neighborhoods feature larger lots. The Forest Lawn Memorial Park occupies much acreage immediately south of I-10 near the top of Kellogg Hill. Cal Poly Pomona occupies virtually all lands south of I-10 on the east side of Kellogg Hill. Stormwater runoff from the Cal Poly Pomona side of Kellogg Hill flows southerly to San Jose Creek, then westward to the San Gabriel River.

#### 3.5.1.2 Open Space

Kellogg Hill rises east of Grand Avenue, and the terrain makes the climb towards its top more sinuous through steeper hillsides. I-10 adjoins open space set aside as conservation for biological species known to inhabit that varied terrain, small draws, and a few small creek beds found in the San Jose Hills. Despite large-lot residential neighborhoods and the Forest Lawn Memorial Park, open space has been retained along the edge of I-10 on both the western and eastern side of Kellogg Hill. Dedicated open space extends from Caltrans' ROW around to the south-facing slopes of the San Jose Hills on the southern side of I-10. An intermittent seasonal creek descends toward I-10 as part of this open space. Additional open space flanks the north side of I-10 and extends easterly to the SR 57 ROW.

#### 3.5.1.3 Landscape Vegetation

To the west of Grand Avenue, and with the exception of the ramp-loop on the northwest corner at Grand Avenue, all plants in other loops and along I-10 are not native. The exception at Grand Avenue amounted to finding a toyon (*Heteromeles arbutifolia*) growing within the loop. Planted for their horticultural properties, they include most frequently gum trees of two or three different species (*Eucalyptus* spp.), jacaranda (*Jacaranda mimosifolia*), oleander (*Nerium oleander*), Brazilian and 'California' pepper trees (*Schinus terrebinthifolia*, *S. molle*, respectively), tulip tree (*Liriodendron tulipifera*), sweetgum (*Liquidambar styraciflua*), Canary Island and probably Aleppo pines (*Pinus canariensis* and *P. halepensis*), Chinese elm, arborescent wattles (*Acacia* sp.), crepe myrtle (*Lagerstromia* sp.), and occasional Shamel ash

(*Fraxinus uhdei*), and Mexican palo verde (*Parkinsonia aculeata*). Iceplant (*Carprobotus edulis*) and ivy (*Hedera algeriensis*) are very common and abundantly planted groundcovers.

#### **3.5.1.4 Native Vegetation**

Many native species grow on the embankment along the south side of I-10 and east of Grand Avenue, some (\*) are quite abundant: California walnut\* (*Jugans californica*), toyon, holly-leaved cherry (*Prunus ilicifolia*), coyote brush (*Baccharis pilularis*), mulefat (*B. salisifolia*), golden bush\* (*Ericameria* cf. *pinifolia*), poison oak\* (*Toxicodendron diversilobum*), flat-topped buckwheat\* (*Eriogonum fasciculatum*), white sage (*Salvia apianna*), California sagebrush\* (*Artemisia californica*), lupine (*Lupinus* sp.), groundsel (*Senecio* sp.), pearly everlasting (*Gnaphalium* sp.), live for ever (*Dudleya lanceolata*), telegraph weed\* (*Heterotheca grandiflora*), California cudweed aster\* (*Lessingia filaginifolia*), elderberry (*Sambucus mexicanus*), deer weed (*Lotus scoparius*), laurel sumac (*Malosma laurina*), and jimson weed (*Datura wrightii*). Farther east, nearly to the SR 57/SR 71 interchange, four coast live oaks (*Quercus agrifolia*) grow on the south side of I-10.

Most of these native species grow on a small sliver of embankment at the very top of Kellogg Hill. While there are natives on the sloped embankment, comparatively dense growth occurs at the top of the embankment, approximately 75 feet south of the existing edge of I-10 and 35 feet higher than the pavement. Concrete drainage ditches interconnect and essentially bound this isolated sliver of native community. Manicured grounds of Forest Lawn Memorial Park form a complete biologically effective barrier between this sliver within Caltrans ROW and like plant assemblages on the south side of the San Jose Hills.

#### **3.5.1.5 Biological Species of Concern**

Ten species of special conservation status have been recorded within 0.5-mile of the I-10 corridor. These species are listed in Table 3.5-1.

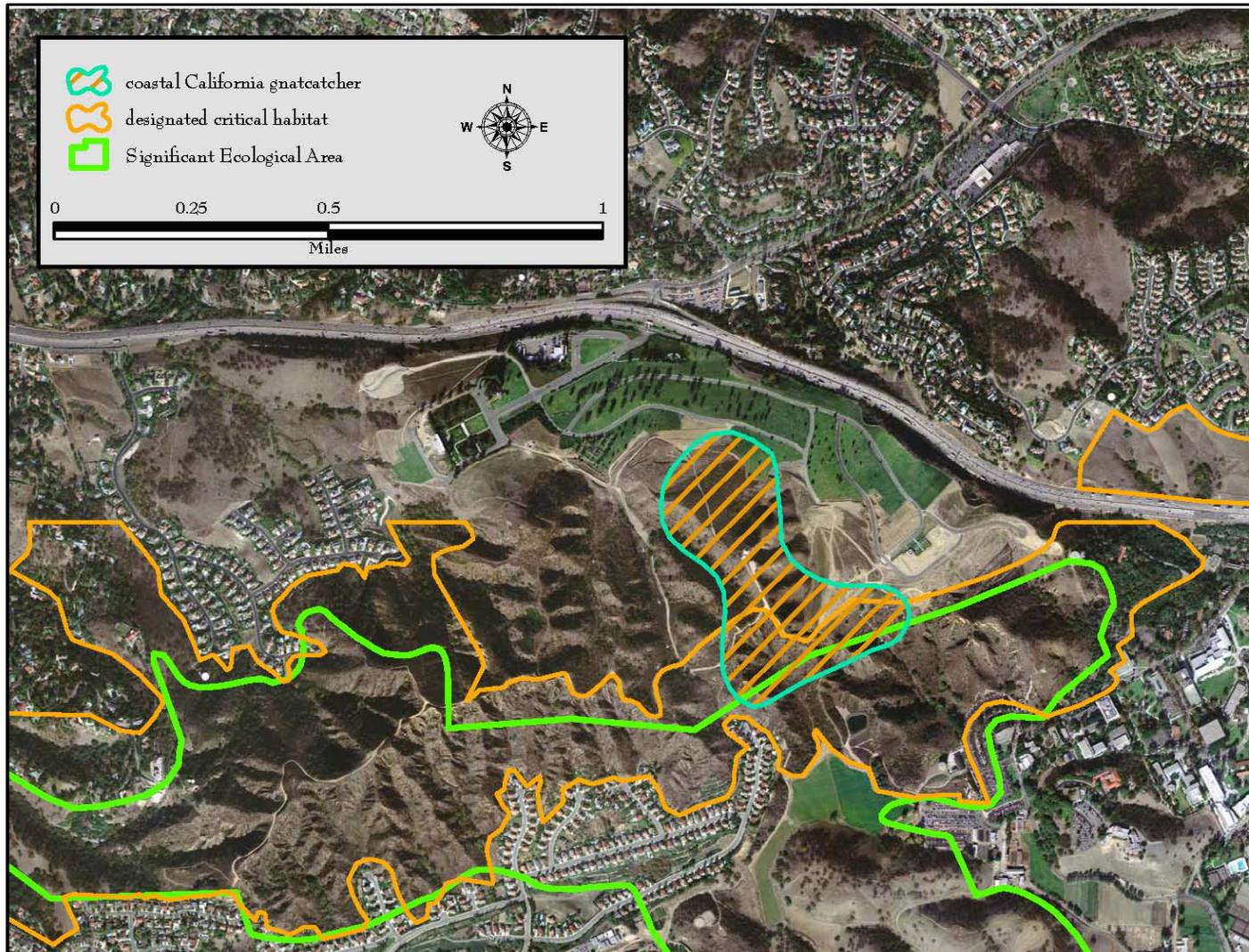
Three of the 10 species appear in CNDDDB occurrence records because each has become less abundant or displaced by urban development from its recent historic range. None of these three — coastal whiptail lizard, merlin, and rufous-crowned sparrow — has been elevated to formal special status. Five of the 10 species are known to occur only on the south side of the San Jose Hills. Many-stemmed dudleya is known to grow only northeast of the BSA in suitable native soils in Bonelli County Park. The remaining three species have vague collection locales somewhere in Covina. The engineered embankments along I-10 do not afford suitable habitat for any of these species.

**TABLE 3.5-1 ALL CNDDB OCCURRENCES WITHIN 0.5-MILE OF I-10  
BETWEEN PUENTE AVENUE AND SR 57**

Taxon	Status*	Remarks
American badger ( <i>Taxidea taxus</i> )	SC	Unspecified location in Covina
Plummer's mariposa lily ( <i>Calochortus plummerae</i> )	1B.2	Previously observed only on southern side of San Jose Hills
coastal California gnatcatcher ( <i>Polioptila californica californica</i> )	Threatened	Previously observed only on southern side of San Jose Hills
coastal whiptail ( <i>Aspidoscelis tigris stejnegeri</i> )	none	Previously observed only on southern side of San Jose Hills
intermediate mariposa lily ( <i>Calochortus weedeii intermedius</i> )	1B.2	Previously observed only on southern side of San Jose Hills
many-stemmed dudleya ( <i>Dudleya multicaulis</i> )	1B.2	Previously observed only near Puddingstone Reservoir
merlin ( <i>Falco columbarius</i> )	none	Seen only over agricultural fields on Cal Poly Pomona campus
pocketed free-tailed bat ( <i>Nyctinomops femosaccus</i> )	SC	Known from single specimen, collected 1982 in Covina
rufous-crowned sparrow ( <i>Aimophila ruficeps canescens</i> )	none	Previously observed only on southern side of San Jose Hills
western mastiff bat ( <i>Eumops perotis californicus</i> )	SC	Last collections from 1957 and 1958, unspecified locale other than Covina
California black walnut woodland	S2.1	Present
* Threatened — listed per authority of federal Endangered Species Act; SC — California Department of Fish and Game species of special concern; 1B.2 — eligible for formal listing per authority of California Endangered Species Act and deemed rare, threatened, or endangered by California Native Plant Society; none — declining populations but not yet sufficiently to warrant inclusion on lists. Natural communities declining in size and ecological complexity have State ranking between S1 (worst prospects) and S3 (less bleak prospects).		

### 3.5.1.6 Threatened and Endangered Species

Coastal California gnatcatchers were present in suitable habitat on the south side of the San Jose Hills during surveys completed between 2001 and 2003. As shown in Figure 3.5-1, most of the land designated as gnatcatcher critical habitat occurs on the south-facing slopes of the San Jose Hills. The open space on the west side of Kellogg Hill, the conservation preserve through which the small creek runs, lacks the proper assemblage of plant species; therefore, it was not included as critical habitat. Thus, Caltrans' ROW does not extend to designated critical habitat on the west side of Kellogg Hill. Where the ROW abuts Cal Poly Pomona lands, on the east side of Kellogg Hill, designated critical habitat for gnatcatchers was drawn to extend to within 125 feet of the south edge of I-10. Where the proposed project and designated critical habitat are in close proximity, an unusually dense growth of laurel sumac forms a wide swath between the edge of I-10 and Cal Poly Pomona. This northern side of Cal Poly Pomona has large stands of nonnative pines among other plants never found in chaparral, with a weedy band between the pines and the laurel sumac thicket.



**Figure 3.5-1. Known Location of Coastal California Gnatcatchers, Designated Critical Habitat, and a Significant Ecological Area in the Vicinity of Kellogg Hill**

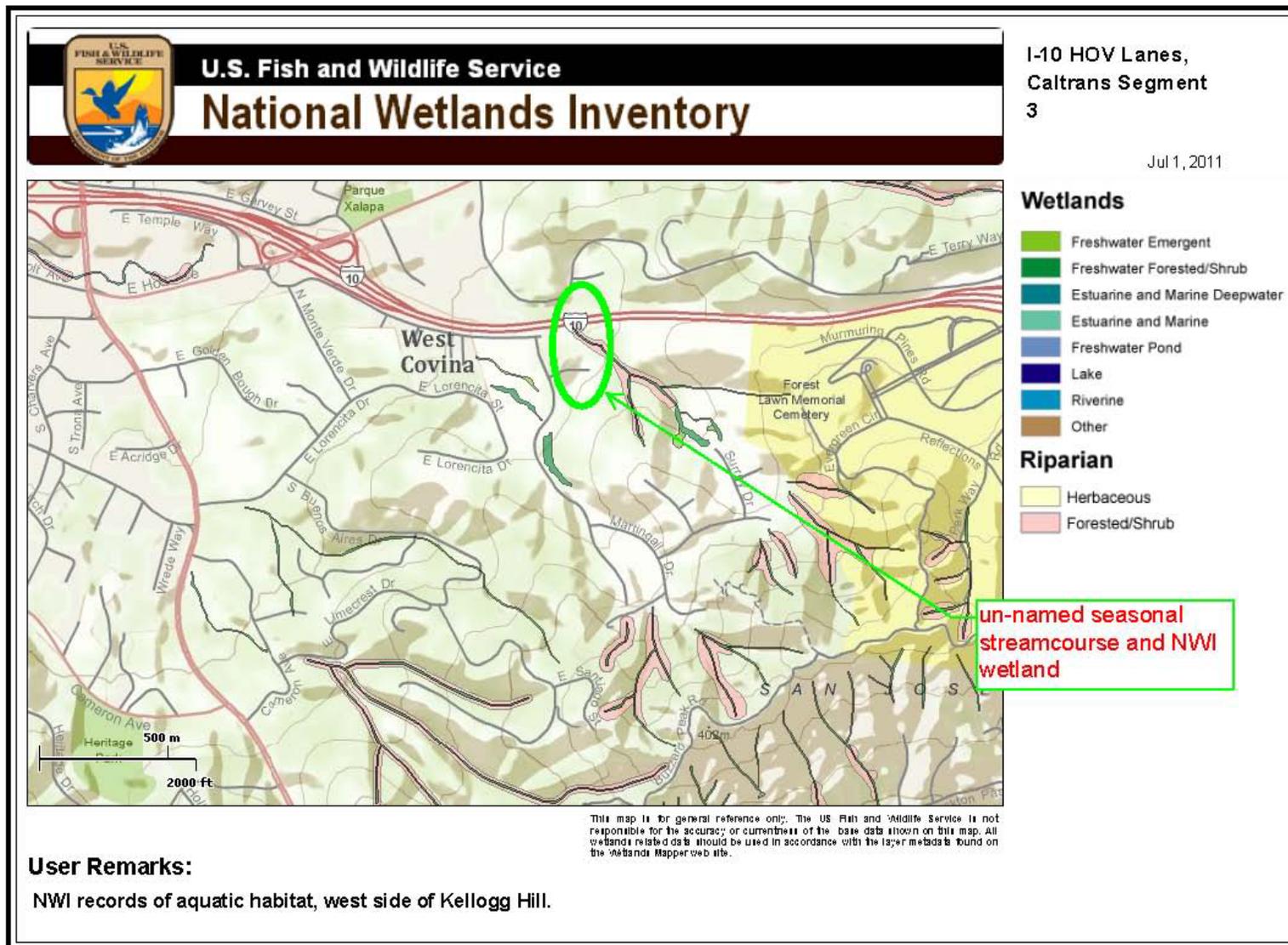


Figure 3.5-2. Unnamed Seasonal Stream Course and NWI Wetland

### 3.5.1.7 Wetlands and a Stream Course

An unnamed, seasonal stream shown in Figure 3.5-2 flows northwesterly from the western side of the San Jose Hills and approaches the south side of I-10 approximately 0.9-mile west of Via Verde Street, on the western side of Kellogg Hill. United States Geological Survey (USGS) maps the stream course as dotted blue-line. The creek bed carried water on May 18, 2011, probably because light rain fell the previous evening. The stream enters a 60-inch culvert at the south edge of I-10, and thereafter its course is undeterminable from above ground. It runs eventually to the San Gabriel River, most likely by confluence with Walnut Creek, which is a rectangular box-channel conveyance that crosses under I-10 between Grand and Barranca avenues. A cluster of California black walnut trees grows on the sloping shoulder of the roadbed around a structural depression built to accommodate concrete headwalls of this culvert. Caltrans ROW is less than 60 feet from the headwalls.

Upstream and beyond the Caltrans ROW fence, this stream course has all of the essential elements of a very narrow riparian corridor. Two tree species grow between I-10 and the ROW fence: California black walnut and Chinese elm (*Ulmus pavifolia*). Upstream from the ROW fence, other noteworthy trees and shrubs include western sycamores (*Platanus racemosa*), coast live oak (*Quercus agrifolia*), arroyo willow (*Salix lasiolepis*), and mulefat (*Baccharis salisifolia*). The stream course is mapped as wetlands in the National Wetlands Inventory. The map classifies the final length of the stream course, which is approximately 1,425 feet, as palustrine forested wetlands (Cowardin classification PFOA).

As this intermittent creek disappears beneath I-10 via a steep culvert, and because it is intermittent, no species of fish could inhabit its temporary waters.

Local wildlife species, such as bobcats (*Lynx rufous*), coyotes (*Canis latrans*), striped skunks (*Mephitis mephitis*), and raccoons (*Procyon lotor*), could use the stream course as a sheltered corridor to move between the south side of the San Jose Hills and the open space on the west side of Kellogg Hill. No tracks of any mammal were seen in mud along the creek's bank during the reconnaissance survey.

### 3.5.2 Regulatory Requirements

The following summarizes environmental laws governing biological resources relevant to the proposed project.

- Federal Endangered Species Act of 1973, as amended;
- Federal Water Pollution Prevention and Control Act of 1972, §404;
- Federal Water Pollution Prevention and Control Act of 1972, §401;
- Migratory Bird Treaty Act of 1918; and,
- County of Los Angeles provisions to safeguard Significant Ecological Areas (SEA).

### **3.5.2.1 Federal Endangered Species Act**

*Purpose:* Conserve species of fish, wildlife, and plants facing extinction.

*Applicability:* Any action that is likely to jeopardize continued existence of such endangered or threatened species or result in destruction or modification of critical habitat.

*General Procedures:* This Act and subsequent amendments provide for the conservation of endangered and threatened species and the ecosystems upon which they depend. Section 7 of the Act requires federal agencies, in consultation with and with the assistance of the Secretary of the Interior or of Commerce, as appropriate, to ensure that actions they authorize, fund, or carry out are not likely to jeopardize the continued existence of threatened or endangered species or result in the destruction or adverse modification of critical habitat for these species. The U.S. Fish and Wildlife Service (USFWS) and National Oceanic Atmospheric Administration (NOAA)-Fisheries share responsibilities for administering the Act.

Section 10 of the Act requires nonfederal agencies, such as Caltrans, to consult in like manner with USFWS when a proposed project may adversely affect a threatened or endangered species.

Coordination and consultation would occur between USFWS and Caltrans should the proposed project require measures to conserve such listed species or their designated critical habitat.

### **3.5.2.2 Federal Water Pollution Prevention and Control Act of 1972, §404**

Section 404 of the Clean Water Act establishes a permit program administered by USACE regulating the discharge of dredged or fill material into waters of the United States, including wetlands. The Section 404(b)(1) guidelines allow the discharge of dredged or fill material into the aquatic system only if there is no practicable alternative that would have less adverse impacts.

### **3.5.2.3 Federal Water Pollution Prevention and Control Act of 1972, §401**

Section 401 requires an applicant for a federal license or permit to conduct any activity, which may result in a discharge to waters of the U.S. to obtain certification from the State that the discharge will comply with other provisions of the act. (Most frequently required in tandem with a Section 404 permit request).

### **3.5.2.4 Migratory Bird Treaty Act of 1918**

This law implements various treaties between the United States and Canada, Mexico, former Soviet Union, and Japan protecting migratory birds by making it unlawful at any time, by any means or in any manner, to pursue, hunt, take, capture, or kill said species. The law

applies to the removal of nests, such as swallow nests on bridges, occupied by migratory birds during the breeding season. USFWS enforces this act.

### **3.5.2.5 County of Los Angeles Significant Ecological Areas**

The County of Los Angeles maintains an inventory of undeveloped lands designated as SEAs. These are tracts of land it deems to "...play a critical role in identifying the County's biotic diversity, and providing an opportunity to connect these areas with similar areas of biological importance in adjacent counties. For example, the Puente Hills SEA identifies a regionally significant open space that connects the Puente Hills in Los Angeles County with the Chino Hills in Orange County" (Los Angeles County, 2011).

SEAs are defined as ecologically important land and water systems that support valuable habitat for plants and animals, and are often integral to the preservation of rare, threatened, or endangered species and the conservation of biological diversity in the County. An Ecological Transition Area (ETA), a subset of an SEA, identifies areas where the natural ecological features or systems have been degraded as a result of past or ongoing land use activities, but are deemed functionally integral to the SEA. Conservation of the County's biotic diversity is the main objective of the SEA Program, and connectivity between important natural habitats plays a vital role in maintaining biotic communities. The SEAs are not preserves, but areas where facilitating a balance between new, appropriately designed development and resource conservation are important in the County.

Project effects that could permanently degrade the ecological qualities of SEAs would constitute a significant project impact. Such degradation might include, but is not limited to, mechanized clearing and grubbing, which would remove natural topographic features, actions that would alter hydrological properties of SEA lands, and installation of streets lights where none now exist.

### **3.5.3 Significance Criteria**

Criteria for determining the significance of impacts related to biological resources are based on the CEQA Guidelines, Appendix G – Environmental Checklist. Impacts from the proposed project would be considered significant if the proposed project would:

**BIO-1:** Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by CDFG or USFWS.

**BIO-2:** Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by CDFG or USFWS.

**BIO-3:** Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (e.g., marsh, vernal pool, coastal) through direct removal, filling, hydrological interruption, or other means.

**BIO-4:** Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.

**BIO-5:** Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.

**BIO-6:** Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

### 3.5.4 Impacts

#### 3.5.4.1 No Project Alternative

**Threatened and Endangered Species (California gnatcatchers).** No change from existing conditions would occur. Slopes of hillsides on the far side of the San Jose Hills away from the I-10 corridor would neither improve nor diminish in ecological qualities important to coastal California gnatcatchers. No impacts would be expected.

**Other Species of Concern.** No change from existing conditions would occur; therefore, no impacts would be expected.

**Wetlands and Waters of the United States.** California black walnut trees around the culvert and on the overbank of the unnamed stream would not be removed under this alternative. No impact to wetlands, riparian habitat, or waters of the United States would occur.

**Significant Ecological Areas.** No change in features or qualities of the SEA would occur; therefore, there would be no impact.

**Animal Movement.** No change in features or qualities of the intermittent creek bed and trees along it would occur; therefore, there would be no impact.

**Nesting Birds.** In the same manner, the numbers of migratory bird species finding suitable nesting sites given existing conditions cannot be estimated credibly; however, some nests should be expected. Year to year variability of nesting success by all bird species can arise from a great many influences other than merely the number of trees and bushes that happen to grow in a region the size of the project area. Retention of existing urban conditions would therefore not cause any foreseeable change in the measurable success, neither an increase nor a decrease, in the average numbers of chicks that survive to leave their nests of the migratory species that attempt to nest in this region.

**Dedicated Open Space.** There would be no impact to dedicated open space under the No Project Alternative.

#### **3.5.4.2 Proposed Project Alternative**

**Impact BIO-1: The proposed project would not injure coastal California gnatcatchers, disrupt their nesting behavior, or change for the worse habitat conditions they require.**

**Gnatcatcher Individuals.** The proposed construction of HOV lanes along I-10 would require construction of retaining walls in the general vicinity of Kellogg Hill. These would be built within a few feet of the existing toe of the freeway embankment. Site preparation for these retaining walls would not extend more than approximately 10 feet into those embankments.

Suitable gnatcatcher habitat does not occur where expansion of I-10 requires removal of plants from the extant freeway embankment, either on the west side of Kellogg Hill or at Cal Poly Pomona. Scattered walnuts, toyon, and holly-leaved cherry compose all of the perennials on the embankment west of Forest Lawn Memorial Park. Laurel sumac grows very densely between I-10 and Cal Poly Pomona. The open-space lands close to I-10 and within the BSA lack any of the perennial shrub species (e.g., buckwheat, California sagebrush) where gnatcatchers would forage or nest. No gnatcatchers were heard calling from anywhere adjacent to the Caltrans ROW fence.

The proposed project would cause no direct adverse effect to gnatcatchers known to occur in species-specific habitat on the south side of the San Jose Hills.

**Designated Critical Habitat.** Although mapped in close proximity to I-10, construction on the south side of I-10 to build a concrete retaining wall would not intrude into designated critical habitat. Nor could this aspect of the proposed project change the biotic quality of gnatcatcher habitat because the assemblage of native perennial shrubs do not grow in this part of the project corridor; therefore, the proposed project would comply with this second aspect of the federal endangered species statute.

Designated critical habitat for gnatcatchers does not extend to the ROW boundary Caltrans administers; therefore, the proposed project would have no effect of designated critical habitat.

Impacts would be considered less than significant as a result of the proposed project.

**Impact BIO-2: The proposed project would not adversely cause death, injury, or removal by ground disturbance to individuals of the other nine species of concern.**

The extant embankments on Kellogg Hill do not afford suitable conditions for any of the other plant or animal species. The proposed construction of HOV lanes along I-10 would cause no direct adverse effect to any of the 10 species known to occur in species-specific habitat on the south side of the San Jose Hills, which are within 0.5-mile of the freeway alignment. No impact is anticipated as a result of the proposed project.

**Impact BIO-3: The proposed project would not decrease the size of lands mapped as wetlands.**

Although there would be some tree removal work as described below, construction activity along the south side of I-10 would not affect the unnamed stream course itself on the west side of Kellogg Hill. The existing creek channel would remain undisturbed and would carry seasonal runoff between Caltrans' fence and the opening to the culvert; therefore, the proposed project would not affect wetlands, streambed, or stream bank. The project would not result in any substantive effect upon this areas riparian character.

No impact to wetlands, riparian habitat, or waters of the United States would be expected with implementation of the proposed project.

**Impact BIO-4: The proposed project could result in the failure of nests or death of unfledged chicks of migratory bird species.**

Some horticultural landscape trees may be removed during reshaping of the ramp loop at Vincent Avenue. Elsewhere to the west of Citrus Street, construction of soundwalls could require removal of up to seven landscape trees. None are regionally important in any biological context. East of Grand Avenue, three to five walnut trees and two Chinese elms that surround the end of the stream course would be removed. Installation of retaining walls may require removal of approximately 10 individual trees: three toyon and seven walnuts.

Various bird species that nest in southern California and migrate south during fall in the northern hemisphere would possibly find suitable nesting places within tree canopies at many places along the freeway corridor. No credible estimate of their numbers can be presented. The proposed project could cause nest failures from the removal of trees at a few locations.

Impacts would be considered less than significant as a result of the proposed project.

**Impact BIO-5: The proposed project would not degrade biological conditions that distinguish the County SEA.**

Although the SEA wraps around the San Jose Hills on their south face and approaches the Caltrans ROW on the Cal Poly Pomona campus, it does not actually reach the proposed limits of construction of retaining walls.

No change in features or qualities of the SEA would occur from the proposed project; therefore, there would be no impact.

**Impact BIO-6: The proposed project would not disrupt movement of wildlife between natural communities.**

No signs of mammals using the small creek's bed or banks as a dispersal corridor were evident. In view of the abrupt termination of the intermittent stream course as a natural

riparian corridor where it enters the culvert at the edge of the freeway, the riparian band does not lead anywhere as a migratory destination.

Removal of walnut trees and Chinese elms from around the overbank of the culvert would not appreciably change the qualities that make the rest of the creek channel upstream from the ROW fence suitable, or not, for local movement within the dedicated open space.

No change in features or qualities of corridors that animals rely on for localized movement on the southern side of I-10 would occur from the proposed project; therefore, there would be no project impact.

**Impact BIO-7: The proposed project would not alter the ecological character of the open space on the west side of Kellogg Hill.**

The proposed project would require removal of three to five walnut trees and two Chinese elms that surround the end of the stream course. They are, in effect, too close to the edge of the freeway to be avoided. East of the culvert also the south side of I-10, installation of retaining walls may require removal of up to 10 individual trees: 3 toyon, and 7 walnuts. This tally is provisional pending more detailed project design.

Necessary removal of less than one-acre total of California black walnut woodland would occur at discontinuous assorted places in the eastern portion of the project; a change of minor and negligible consequence in local abundance of walnuts and habitat they afford. Removal of as many as seven horticultural trees from assorted places in ramp loops would similarly be of negligible consequence in view of similar conditions throughout the general region of the proposed project.

Because these trees are isolated, they do not provide any meaningful ecologically functional woodlands qualities. Hence, removal of approximately 15 native trees, mostly isolated from each other, would not substantially diminish the biological worth of the site. Absence of measurable ecological impact notwithstanding, Caltrans intends to offset any unavoidable loss of native trees not originally planted as landscaping.

Caltrans ROW does not reach as far south as the dedicated open space. Cut and fill to make retaining walls along this region of I-10 would not extend more than a few feet into the extant freeway embankment. Dedicated open space and I-10 embankments do not overlap anywhere in the project area. There would be no impact associated with the proposed project.

### **3.5.5 Mitigation Measures**

No mitigation measures are required; however, the following minimization measures are proposed:

- Removal of all trees should occur between September 15 and January 15 to avoid the breeding season. If tree removal must occur during the breeding season, then a

qualified biologist shall be required to survey all trees for presence of active nests scheduled for removal. Discovery of nests with eggs or unfledged young birds will necessitate establishing an off-limits buffer around particular trees. The size of that buffer shall be determined in consultation with CDFG biologists. Disturbance potentially caused by various tools and equipment shall be considered in light of the nesting requirements of birds found in the zone of construction.

- Trees of both toyon and black walnut species will be planted from suitable nursery stock, three replacements for each natural tree removed. The stream course itself does not afford enough ground inside the ROW fence to accommodate more than two or three trees, thus the remainder would need to go into locations on Kellogg Hill where wider ROW exists.

### **3.5.6 Level of Significance after Mitigation**

No mitigation measures are required for the proposed project.

## 3.6 Cultural and Paleontological Resources

Cultural resources in the I-10 HOV Lane Project study area were identified based on literature reviews, records searches, and field surveys conducted by qualified architectural historians and archaeologists as described in detail in the *Historic Property Survey Report* (HPSR) (Caltrans, 2010a); *Negative Archaeological Survey Report* (ASR) (Caltrans, 2000a); and *Negative ASR* (Caltrans, 2002a).

### 3.6.1 Existing Conditions

The proposed project study area lies either within the paved traveled way or within the built environment. The study area, as defined in the 2010 HPSR, includes all areas affected by the current project plans. ROW acquisitions are included within the study area, as well as one property beyond the proposed acquisition. The additional property is evaluated to account for indirect effects such as noise, visual impacts, or vibration. All properties that would have TCEs are also included within the study area (Caltrans, 2010a).

The prehistoric environment would have been characterized by coastal sage scrub vegetation, with California sagebrush, walnut woodland, and riparian habitats. The project area ranges from 300 to 900 feet in elevation and is drained by the San Gabriel River, Big Dalton Wash, Walnut Creek, and Charter Oak Creek (Caltrans, 2010a).

#### 3.6.1.1 Ethnography

**Prehistoric.** The project is located in the ethnographic and historic territory traditionally inhabited by the Gabrielino Indians, who subsisted on hunting and gathering, and lived in small, dispersed villages. The Gabrielino culture changed following the arrival of the Spanish missionaries to the San Fernando and San Gabriel missions in the 1770s. The Gabrielinos occupied a large area of southern California, including coastline from Topanga Canyon to Aliso Creek, the Southern Channel Islands, out to the San Bernardino Mountains, and most of the San Fernando Valley. They had a complex social, economic, and political structure, and they are known for their steatite, or soapstone industry, originating on Santa Catalina Island. At the time of historic contact, there were probably 50 to 100 mainland villages, each with a population of 50 to 100 inhabitants (Caltrans, 2000a).

**Historic.** Los Angeles was first discovered by the Spanish in 1769 while they were developing a trail between San Francisco and San Diego, known as El Camino Real. Led by Father Junipero Serra and Captain Gaspar de Portola, Father Juan Crespi wrote that the valley looked very hospitable for a large mission settlement, especially with a ready source of freshwater nearby from the Los Angeles River, which Crespi named El Rio de Nuestra Senora la Reina de los Angeles de Porciuncula. The river provided water to Los Angeles residents for 133 years, until 1913 when the Los Angeles Aqueduct was completed.

California's new governor, Felipe de Neve, recommended to the Viceroy in Mexico that the valley instead be developed into a pueblo, to be called El Pueblo de Nuestra Senora la Reina

de los Angeles de Porciuncula. It was founded after King Carlos III of Spain ordered the governor to establish the pueblo in September 1781. Los Angeles was the second of the three pueblos to be established in Alta California. The Mexican Period of Los Angeles history began in 1821 when Mexico achieved independence from Spain and extended to 1848 when the town of Los Angeles was taken by the United States in the Mexican-American War and the state eventually added to the Union. Los Angeles basin land use following this political shift went from large-scale agricultural to small-scale farms and ranches, and ultimately to the current pattern of dense suburban development (Caltrans, 2000a).

### 3.6.1.2 Historic Resources

A total of 368 improved properties, 74 unimproved properties, and 40 bridges are located within the Area of Potential Effects (APE)/study area surveyed in the *Historic Architectural Survey Report* that was prepared in 2002 (Caltrans, 2002b). Of these properties, 188 were constructed after 1956, 6 properties contain mobile homes or other temporary structures, and 14 properties were previously evaluated. A total of 161 properties were formally evaluated for eligibility for the National Register of Historic Places (NRHP). None of these newly evaluated properties were found to be eligible for the NRHP.

One property was previously determined eligible for inclusion in the NRHP. This property, partially within the APE/study area near the eastern end of the proposed project, was the main residence complex of the W. K. Kellogg Arabian Horse Ranch at Cal Poly Pomona. The eligible portion of this property includes the area bounded by the main residence, guest cottage and gardens, the residence gates, palm canyon, the small garage, and the Covina or northwestern gateposts. The main house is a Spanish Colonial Revival-style residence designed by Myron Hunt of Hunt and Chambers and constructed in 1926 for Mr. and Mrs. Will Keith Kellogg. Mr. Kellogg, of Battle Creek, Michigan, was the coinventor of cornflakes and the president of the Kellogg Cereal Company.

The main gate to the site is no longer used because construction of I-10 in the 1960s removed Holt-Garvey Avenue, which provided access to this part of the site. The ranch house and other buildings are fully enclosed within the college campus, and many of these buildings are currently used for college functions.

This property was determined to be eligible for the NRHP based on:

- Criterion B for its association with W.K. Kellogg, the coinventor of cornflakes and self-proclaimed protector of the Arabian horses bred in the United States.
- Criterion C for its extraordinary architecture and landscape design qualities.

The State Historic Preservation Office (SHPO) concurred with the eligibility finding for the W.K. Kellogg Arabian Horse Ranch, as documented in the letter from the SHPO dated March 13, 1995. The SHPO further concurred that no additional structures identified in the

Supplemental HPSR were eligible for inclusion in the NRHP. Subsequent cultural resource studies have not identified historical resources within the APE/study area.

### **3.6.1.3 Archaeological Resources**

No recorded prehistoric sites were identified within the study area. While the current environment in the I-10 project study area is predominantly paved, there are several small unpaved land areas adjacent to the ROW that would be affected by the proposed project. All unpaved areas were surveyed on foot, and no archaeological material was observed. A windshield survey was also conducted to observe most of the proposed project site with little potential to produce archaeological resources. Soil conditions observed during the pedestrian and windshield surveys were largely disturbed, and the APE was deemed to have a low level of sensitivity for archaeological resources.

### **3.6.1.4 Paleontological Resources**

The western and central portions of the project corridor are underlain by Quaternary deposits of the San Gabriel Valley. Locally, the existing I-10 is situated on Holocene alluvium materials consisting of unconsolidated gravel, sand, silt, and clay of various lithologies. At and very near the surface (e.g., less than 3 to 5 feet below ground surface [bgs]), the Younger Alluvium is probably too young to contain fossil remains. Correspondingly, there is probably only a low potential for scientifically important fossils to be encountered by very shallow ground-disturbing activities (PEAI, 2010).

The eastern end of the project corridor crosses the Puente Formation, where it unconformably overlies the Topanga Formation, and consists of a very thick sequence of marine sandstone, siltstone, shale, and pebble conglomerate. The middle upper Miocene-age Puente Formation has produced marine microfossils (i.e., benthic foraminifers); fossilized fish scales; fossilized remains of extinct species of marine algae, clams, crabs, fishes, sharks, and mammals (i.e., whales, desmostylids); fossilized wood and leaves of land plants; fossilized coral remains; fragments of mollusk shells and marine vertebrate bones; and shark teeth. La Vida Shale Member of the Puente Formation has been noted by others at PM 38.5 and consists of thinly bedded olive gray to dark gray diatomaceous and tuffaceous shale and siltstone with interbedded feldspathic sandstone. For the above reasons, the Puente Formation is considered to have a high potential for producing scientifically important fossils (PEAI, 2010).

## **3.6.2 Regulatory Requirements**

“Cultural resources,” as used in this document, refers to all historical and archaeological resources, regardless of significance. Laws and regulations dealing with cultural resources include:

The National Historic Preservation Act of 1966, as amended, (NHPA) sets forth national policy and procedures regarding historic properties, defined as districts, sites, buildings, structures, and objects included in or eligible for the NRHP. Section 106 of the NHPA requires federal agencies to take into account the effects of their undertakings on such

properties and to allow the Advisory Council on Historic Preservation (ACHP) the opportunity to comment on those undertakings, following regulations issued by the ACHP (36 CFR 800). On January 1, 2004, a Section 106 Programmatic Agreement (PA) between the ACHP, FHWA, SHPO, and Caltrans went into effect for Caltrans projects, both state and local, with FHWA involvement. The PA implements the ACHP's regulations (36 CFR 800), streamlining the Section 106 process and delegating certain responsibilities to the Department. FHWA's responsibilities under the PA have been assigned to Caltrans as part of the Surface Transportation Project Delivery Pilot Program (23 CFR 773) (July 1, 2007).

Historical resources are considered under CEQA, as well as California Public Resources Code (PRC) Section 5024.1, which established the California Register of Historical Resources. PRC Section 5024 requires state agencies to identify and protect state-owned resources that meet NRHP listing criteria. It further specifically requires Caltrans to inventory state-owned structures in its ROWs.

### 3.6.3 Significance Criteria

Criteria for determining the significance of impacts related to archaeological, historic, and paleontological resources are based on the CEQA Guidelines, Appendix G – Environmental Checklist. Construction or operation impacts would be considered significant if they were to:

**CUL-1:** Cause a substantial adverse change in the significance of a historical resource as defined in the CEQA Guidelines §15064.5.

**CUL-2:** Cause a substantial adverse change in the significance of an archaeological resource pursuant to the CEQA Guidelines §15064.5.

**CUL-3:** Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.

**CUL-4:** Disturb any human remains, including those interred outside of formal cemeteries.

According to the CEQA Guidelines, Section 15064.5(1), a substantial adverse change in the significance of an historical resource means physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of an historical resource would be materially impaired.

Per Section 15064.5(2): The significance of an historical resource is materially impaired when a project:

- (A) Demolishes or materially alters in an adverse manner those physical characteristics of an historical resource that convey its historical significance and that justify its inclusion in, or eligibility for inclusion in, the California Register of Historical Resources; or

- (B) Demolishes or materially alters in an adverse manner those physical characteristics that account for its inclusion in a local register of historical resources pursuant to Section 5020.1(k) of the PRC or its identification in an historical resources survey meeting the requirements of Section 5024.1(g) of the PRC, unless the public agency reviewing the effects of the project establishes by a preponderance of evidence that the resource is not historically or culturally significant; or
- (C) Demolishes or materially alters in an adverse manner those physical characteristics of a historical resource that convey its historical significance and that justify its eligibility for inclusion in the California Register of Historical Resources as determined by a lead agency for purposes of CEQA; or
- (D) Generally, a project that follows the Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings or the Secretary of the Interior's Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings (1995), Weeks and Grimmer, shall be considered as mitigated to a level of less than a significant impact on the historical resource.

### **3.6.4 Impacts**

#### **3.6.4.1 No Project Alternative**

Implementation of the No Project Alternative would not result in any impacts to archaeological, historic, or paleontological resources because construction activities associated with the proposed project would not occur.

#### **3.6.4.2 Proposed Project Alternative**

**Impact CUL-1: The proposed project would not cause a substantial adverse change in the significance of a historical resource as defined in §15064.5.**

No known historical resources are located within the study area. Neither would the proposed project affect any structures outside the public ROW; therefore, the proposed project would not result in a substantial adverse change to a historical resource. This would be considered a less than significant impact with mitigation as a result of the proposed project.

**Impact CUL-2: The proposed project would not cause a substantial adverse change in the significance of an archaeological resource as defined in §15064.5.**

No recorded prehistoric archaeological sites were identified within the study area; therefore, the proposed I-10 HOV Lane Project would not result in substantial adverse changes to known prehistoric sites. This would be considered a less than significant impact with mitigation as a result of the proposed project.

**Impact CUL-3: The proposed project may directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.**

Direct paleontological resource impacts primarily relate to the potential for destruction of nonrenewable fossils and the loss of information associated with these resources. If potentially fossiliferous bedrock or surficial sediments are disturbed, then the disturbance could result in the destruction of paleontological resources and subsequent loss of information.

In this regard, there are the following considerations with respect to potential impacts with the proposed project:

1. Past and ongoing development throughout the proposed project area has resulted in substantial alterations to the natural landscape.
2. Deep excavation activity is not necessary for the proposed project. There would be some grading work required along the slopes bordering the south side of I-10 at Kellogg Hill.
3. Most of the project corridor is considered to have a 'low' potential for encountering paleontological resources. The area considered to have a 'high' potential for exposing significant fossils is limited to the Kellogg Hill area of the project site.

Given these considerations, it is determined that the proposed project could potentially result in significant impacts to paleontological resources, confined to an area where work would be conducted within the Puente Formation along the eastern end of the project corridor. This would be considered a less than significant impact with mitigation as a result of the proposed project.

**Impact CUL-4: The proposed project would not disturb any human remains, including those interred outside of formal cemeteries.**

Because the proposed project site has been previously disturbed by urban development, construction would not be expected to affect human remains. No human remains are known to exist in the project location, nor is there past evidence of use as human burial grounds. This would be considered a less than significant impact with mitigation as a result of the proposed project.

**3.6.5 Mitigation Measures****3.6.5.1 Historical Resources**

The following mitigation is recommended to offset potential impacts to historical resources:

**MM CUL-1:** In the unlikely event cultural materials are discovered during construction, all earth-moving activity within and around the immediate discovery area will be diverted until a qualified archaeologist can assess the nature and significance of the find.

### **3.6.5.2 Archaeological Resources**

See mitigation measures identified for Section 3.6.5.1 Historical Resources.

### **3.6.5.3 Paleontological Resources**

The following mitigation is recommended to offset potential impacts to paleontological resources:

**MM CUL-2:** A qualified principal paleontologist (MS or Ph.D. in paleontology or geology familiar with paleontological procedures and techniques) will be retained to be present to consult with grading and excavation contractors at pregrading meetings.

**MM CUL-3:** Paleontological monitor, under the direction of the qualified principal paleontologist, will be onsite to inspect cuts for fossils during original grading involving sensitive geologic formations.

**MM CUL-4:** When fossils are discovered, the paleontologist, or paleontological monitor, will recover them. Construction work in these areas will be halted or redirected to allow recovery of fossil remains in a timely manner.

**MM CUL-5:** Fossil remains collected during the monitoring and salvage portion of the mitigation program will be cleaned, repaired, sorted, and cataloged.

**MM CUL-6:** Prepared fossils, along with copies of all pertinent field notes, photos, and maps, will then be deposited in a scientific institution with paleontological collections.

**MM CUL-7:** A final report will be completed that outlines the results of the mitigation program.

### **3.6.5.4 Human Remains**

The following mitigation is recommended to offset potential impacts to human remains:

**MM CUL-8:** In the unlikely event human remains are discovered, State Health and Safety Code Section 7050.5 states that further disturbances and activities shall cease in any area or nearby area suspected to overlie remains, and the County Coroner contacted. Pursuant to Public Resources Code Section 5097.98, if the remains are thought to be Native American, the coroner will notify the Native American Heritage Commission (NAHC) who will then notify the Most Likely Descendent (MLD). At this time, the person who discovered the remains will contact Gary Iverson, Environmental Chief, so that they may work with the MLD on the respectful treatment and disposition of the remains. Further provisions of PRC 5097.98 are to be followed as applicable.

### **3.6.6 Level of Significance after Mitigation**

The proposed project would not result in any significant impacts to any archaeological or historic resources. Potentially significant impacts to paleontological resources would be offset with implementation of MM CUL-1 through MM CUL-8.

## **3.7 Geology, Soils, and Seismicity**

This section discusses geology, soils, and seismic concerns as they relate to public safety and project design. Earthquakes are prime considerations in the design and retrofit of structures. Caltrans' Office of Earthquake Engineering is responsible for assessing the seismic hazard for Caltrans projects. The current policy is to use the anticipated maximum credible earthquake (MCE) from young faults in and near California. The MCE is defined as the largest earthquake that can be expected to occur on a fault over a particular period.

### **3.7.1 Existing Conditions**

Regionally, the proposed project is located within the upper portion of the San Gabriel River Basin. This basin is bounded on the west by the San Jose Hills, which form a natural topographic boundary to the north between the San Gabriel and San Bernardino mountains of the Central Traverse Ranges Geomorphic Province (Caltrans, 1993a and 2000b). The San Jose Hills are comprised of Tertiary sedimentary and volcanic rocks (DOC, 2001).

#### **3.7.1.1 Topography**

The topography of the west part of the I-10 HOV Lane Project study area is generally flat between Puente and Grand avenues. East of Grand Avenue, the elevation rises, with grades up to 5.5 percent, as the freeway traverses the west side of Kellogg Hill. Kellogg Hill is part of the San Jose Hills complex, which forms a natural physical boundary between the San Gabriel Valley to the west and the San Bernardino Valley to the east. The proposed project region drains westerly to the San Gabriel River via both Big Dalton Wash and Walnut Creek.

#### **3.7.1.2 Geology and Soils**

A series of flows, breccias, tuffs, and related intrusives known as the middle Miocene Glendora Volcanics are exposed in the northeastern end of the San Jose Hills. These volcanic rocks are overlain by and interbedded with the oldest sedimentary rocks in the area, the middle Miocene Topanga Formation, consisting of interbedded marine conglomerate, sandstone, and foraminiferal siltstone. A poorly sorted conglomerate and conglomeratic sandstone is exposed approximately 1-mile south of I-10 as the "Buzzard Peak conglomerate." The middle upper Miocene Puente Formation unconformably overlies the Topanga Formation and consists of a very thick sequence of marine sandstone, siltstone, shale, and pebble conglomerate.

Quaternary deposits cover the floor of the San Gabriel Valley, including stream channels and alluvial fans and floodplains. They are composed of active channel wash, lacustrine deposits, younger alluvial fan deposits, and older alluvial fan deposits. (DOC, 2001) Locally, the existing I-10 is situated on Holocene alluvium materials consisting of unconsolidated gravel, sand, silt, and clay of various lithologies. Sand, gravel, and clay lenses continue as the depth increases to approximately 150 feet bgs. Just east of the Holt Avenue interchange, the proposed project site is situated on Tertiary-age rocks from the Puente Formation (i.e., La Vida Member), consisting of thinly bedded olive gray to dark gray diatomaceous and

tuffaceous shale and siltstone with interbedded feldspathic sandstone (Caltrans, 1993a and 2000b; PBQ&D, 1993).

### 3.7.1.3 Groundwater

The proposed project site overlies the San Gabriel Valley Groundwater Basin (RWQCB, 1995). Depth to groundwater varies widely throughout the project corridor, from 60 to 200 feet depending on the location of groundwater wells. In general, wells located to the west of the project corridor show deeper groundwater levels than wells to the east of the project corridor.

### 3.7.1.4 Regional Seismicity

Folds are the dominant structural features of the San Jose Hills: two anticlines and an intervening syncline that all trend generally eastward. The San Jose Fault transects the project limits in the vicinity of the interchange of I-10/SR51/SR71. The fault generally strikes to the north-northeast and probably has a vertical dip with the south block being dropped down (DOC, 2001).

The project corridor is in a seismically active area potentially influenced by several known active faults. The geologic processes that have caused earthquakes in the past can be expected to continue. The freeway does not traverse an Alquist-Priolo Zone (DOC, 2007) and is not located over a previously well-defined fault trace. Seismic events that are likely to produce the greatest bedrock accelerations could be a moderate event on the Cucamonga Fault Zone or a large event on a distant active fault such as the San Jacinto or the San Andreas (Caltrans, 1993a and 2000b). Additional local active faults in the Los Angeles region that could cause ground shaking in the project area are as follows. Figure 3.7-1 shows the location of major faults in the region.

- **San Jose Fault** – The San Jose Fault is considered to be a left-lateral strike-slip fault. The peak horizontal bedrock acceleration based on an MCE Richter scale<sup>7</sup> Magnitude of 6.75 along the San Jose Fault is estimated to be approximately 0.6 g. Site parameters indicate that the San Jose Fault system has a largest maximum credible site acceleration of 0.48 g for an MCE-Magnitude of 6.7 and a largest maximum probable site acceleration of 0.17 g for an MCE-Magnitude of 5.0 (Caltrans, 2000b).<sup>8</sup>

---

<sup>7</sup> The Richter scale is a logarithmic scale used to express the magnitude (M) of a seismic disturbance (i.e., earthquake) as a range of numerical values that indicate the amount of energy dissipated during the event. Values generally range from 0 to 10. Each whole number in Richter M represents a tenfold increase in the wave amplitude generated by the earthquake, which is a representation of the size of an earthquake. For each full point increase in Richter magnitude, the corresponding amount of energy released increases 31.6 times. Thus, an M 6.3 earthquake is ten times larger in wave amplitude than an M 5.3 earthquake and releases 31.6 times more energy.

<sup>8</sup> For comparison purposes, the greatest ground acceleration recorded during the 1994 Northridge Earthquake ( $M_m = 6.7$ ) was 0.21 g at the Puddingstone Reservoir (center crest), located approximately 0.6-mile to the north of the SR 57/SR 71 interchange.



- **Puente Hills Blind Thrust Fault** – The Puente Hills Blind Thrust Fault is located approximately 3 miles south of the project corridor. This fault is estimated to extend approximately 25 miles from the Puente Hills Region to south of Griffith Park. The Puente Hills Fault has been assigned a Maximum Magnitude of 6.8 on the Richter scale.
- **East Montebello Fault** – The East Montebello Fault is located approximately 2.2 miles southwest of Baldwin Avenue.
- **Cucamonga Fault** – The Cucamonga Fault is located approximately 4.1 miles to the northeast from the east end of the project corridor.

### 3.7.1.5 Earthquake-Related Effects

Earthquake-related effects include liquefaction and seismically induced settlement. Liquefaction occurs when loose soils lose their shear strength and behave as a liquid when subjected to strong, sustained ground shaking during an earthquake. When these conditions occur, soil strength dramatically decreases, resulting in a near liquid state. Liquefaction occurs most commonly where sand and silty sand deposits coincide with shallow groundwater conditions. Liquefaction can cause damage to foundations or other structures. Based on a regional study conducted by the U.S. Geological Survey (1985), the relative liquefaction susceptibility along the project corridor is considered to be from low to very low.

Seismically induced settlement consists of the compaction or consolidation of soils as a result of seismically induced ground shaking. Loose, sandy, and/or silty soils are typically most susceptible to seismic settlement. Differential compaction may occur during settlement, which can result in serious damage to structures.

### 3.7.1.6 Landslides

Landslides in the project area are assessed in a technical bulletin prepared by the State of California (DOC, 2001). Existing landslides typically consist of disrupted soils and rock materials that are generally weaker than adjacent undisturbed rock and soil materials. These landslides are shown in Figure 3.7-2. The Puente Formation at Kellogg Hill has historically experienced landslides caused by weakness along the contorted bedding planes. Several slides have occurred within this area of I-10. The most landslide-prone bedrock units are the Yorba (i.e., interbedded sandy and diatomaceous siltstone containing thin beds of limestone and thin-bedded to massive sandstone) and La Vida (i.e., laminated to platy siltstone with interbedded pebbly sandstone and local limestone and tuff beds) members of the aforementioned Puente Formation. Most of the landslides inventoried by the State Division of Mines and Geology are debris slides, block slides, and slumps.

**Figure 3.7-2  
Landslide Inventory and Areas of  
Significant Grading in San Jose Hills**



Source: DOC, 2001.

### 3.7.2 Regulatory Requirements

The main purpose of the Alquist-Priolo Special Studies Zones Act of 1972 is to prevent construction of buildings used for human occupancy on the surface trace of active faults. The Act only addresses the hazard of surface fault rupture and is not directed toward other earthquake hazards. The Act defines an "active fault" as a fault that has had surface displacement within Holocene time (i.e., approximately the last 11,000 years).

The Seismic Hazards Mapping Act of 1990 (PRC § 2690 and following as Division 2, Chapter 7.8) addresses nonsurface fault rupture earthquake hazards, including liquefaction and seismically induced landslides. Special Publication 117, Guidelines for Evaluating and Mitigating Seismic Hazards in California (DOC, 1997), constitutes the guidelines for evaluating seismic hazards other than surface fault rupture, and for recommending mitigation measures as required by PRC Section 2695(a).

The California Building Code (CBC) corresponds to the body of regulations known as California Code of Regulations, Title 24, Part 2, which is a portion of the California Building Standards Code. Title 24 is assigned to the California Building Standards Commission, which, by law, is responsible for coordinating all building standards. Under state law, all building standards must be centralized in Title 24 to be enforceable.

The Uniform Building Code (UBC), published by the International Conference of Building Officials, is a widely adopted model building code in the United States. The CBC incorporates the UBC by reference, along with necessary California amendments. Approximately one-third of the text within the CBC has been tailored for California earthquake conditions.

### 3.7.3 Significance Criteria

Criteria for determining the significance of impacts related to geology, groundwater, and soils are based on the CEQA Guidelines, Appendix G – Environmental Checklist. Impacts during project construction and operation would be considered significant under the following circumstances:

**GEO-1:** Expose people or structures to potentially substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault; strong seismic ground shaking; seismic-related ground failure, including liquefaction; or landslides;

**GEO-2:** Result in substantial soil erosion or the loss of topsoil;

**GEO-3:** Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the proposed project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse;

**GEO-4:** Be located on expansive soil, creating substantial risks to life or property; or

**GEO-5:** Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water.

### 3.7.4 Impacts

#### 3.7.4.1 No Project Alternative

The No Project Alternative would not include construction of HOV lanes; however, forecasted increases in traffic volumes would still occur under this alternative. While no construction-related impacts would occur, the project corridor would continue to be subject to the risk of losses associated with future seismic ground shaking. These risks are minimized through adherence to design requirements contained within the aforementioned CBC. The No Project Alternative would result in less than significant impacts under CEQA.

#### 3.7.4.2 Proposed Project Alternative

**Impact GEO-1: The proposed project may expose people or structures to potential substantial adverse effects involving rupture of a known earthquake fault or strong seismic ground shaking.**

Potential seismicity effects on the proposed I-10 HOV Lane Project include ground shaking, liquefaction, seismic settlement, and slope failure. Ground shaking during an earthquake is considered the primary risk of potential future structural damage to I-10 and the proposed project. The potential impacts associated with ground shaking would vary greatly, depending on the fault on which the earthquake occurs, distance from the earthquake epicenter, and magnitude and duration of the earthquake episode(s).

To minimize geologic and seismic hazards near the project, site-specific investigations, seismic hazard engineering analyses, and engineering recommendations for retaining walls, expansive soil treatment, cuts and fills, and bridge foundation elements would be conducted during final design using Caltrans Guidelines for Geotechnical Foundation Investigations and Reports. Specifications for construction would conform to the Caltrans Standard Specifications.

As noted above, the soils in the proposed project vicinity are not particularly susceptible to either liquefaction or seismic settlement. Standard Caltrans final design and construction techniques include measures to address soil stabilization and reduce the potential for associated seismicity effects to a less than significant level.

**Impact GEO-2: Construction and operation of the proposed project is not expected to result in substantial soil erosion or the loss of topsoil.**

The Caltrans Highway Design Manual requires the design of modified highways to direct storm and landscaping runoff to storm drains and to avoid unnecessary flow of water over unpaved and nonlandscaped areas. During construction, best management practices (BMPs) would be employed to minimize erosion to the maximum extent practicable. A Caltrans Stormwater Management Plan (SWMP) would be prepared to address BMPs to reduce the discharge of pollutants associated with the stormwater drainage systems. The completed project plans would incorporate all necessary Maintenance BMPs (Category IA), Design Pollution BMPs (Category IB), and Treatment BMPs (Category III) to meet the maximum extent practicable requirements; therefore, the proposed project would result in less than significant impacts related to erosion.

**Impact GEO-3: The proposed project may be located on a geologic unit or soil that is unstable, or that may become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse.**

Given the historic landslide activity in the Kellogg Hill area, as shown in Figure 3.7-2, there is the potential that the proposed project could be adversely affected by landslides. This area has been extensively studied by state geologists. The project design through this area would include retaining walls to support cut slopes. These retaining walls would be based on Caltrans design criteria, which generally follows American Association of State Highway and Transportation Officials (AASHTO) and FHWA design criteria. The proposed retaining walls would enhance the existing stability of the slopes. Given these considerations, it is not anticipated that, either during or after construction of the retaining walls, the project would compromise the existing stability conditions of the slopes above the walls.

One location for retaining walls is along the Forest Lawn property on the south side of the eastbound lanes. The existing slopes along the ROW line between Forest Lawn and Caltrans properties were graded in the early 1980s with a slope ratio of approximately 2H (Horizontal): 1V (Vertical). These slopes are currently covered with vegetation, thus limiting the information that could be gathered during field observations. Given this situation, plus access limitations,

existing conditions of the slopes above the proposed retaining walls could not be ascertained. Additional information would need to be obtained during the detailed project design stage.

Several factors outside of Caltrans' control may affect the conditions of the slopes. These factors, which must be prevented to ensure long-term stability of the slopes, include:

- Saturation of the slopes due to irrigation water or accumulation of water outside of Caltrans' ROW;
- Additional surcharge placed above the slopes outside of Caltrans' ROW; and
- Erosion of the slopes by surface water runoff from outside of Caltrans' ROW.

**Impact GEO-4: The proposed project is not located on expansive soils.**

Soils containing high clay content often exhibit a relatively high potential to expand when saturated and contract when dried out. This shrink/swell movement can adversely affect building and structure foundations, often causing them to crack or shift, with resulting damage to the buildings they support. Proposed project structures would be built to current State of California design standards and in accordance with project-specific geotechnical report recommendations for handling of expansive soils. The soils at the proposed project site do not have a high clay content that would cause adverse effects to building foundations; therefore, the proposed project would have no impacts related to expansive soils.

**Impact GEO-5: The proposed project does not have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water.**

Project implementation would not require the use of septic tanks or alternative wastewater disposal systems; therefore, no impacts associated with the use of a septic system would occur.

### **3.7.5 Mitigation Measures**

**Impacts GEO-1, GEO-2, GEO-3, GEO-4, and GEO-5:** No mitigation measures are required; however, the following measures will be included to avoid or minimize impacts associated with slope failure:

- Retaining walls will be included in the project design for the Kellogg Hill area where ROW constraints do not allow slopes to be cut parallel to the existing slope ratios. The proposed project may include other design features where determined necessary to minimize the potential for losses due to possible future slope failure activity. Retaining walls will be designed and constructed in a manner that satisfies both State and Federal standards and requirements.

### **3.7.6 Level of Significance after Mitigation**

No mitigation measures are required for the proposed project.

### **3.8 Hazardous Waste/Materials**

Hazardous materials are generally substances that, by their nature or reactivity, have the capacity for causing harm or health hazards during normal exposure or an accidental release or mishap. They are characterized as being toxic, corrosive, flammable, reactive, an irritant, or a strong sensitizer. The term “hazardous substances” encompasses chemicals regulated by both U.S. Department of Transportation (DOT) “hazardous materials” regulations and the U.S. Environmental Protection Agency’s (EPA) “hazardous waste” regulations, including emergency response. Hazardous wastes require special handling and disposal because of their potential to damage public health and the environment.

This subsection discusses potential human health hazards due to exposure to existing and possible future sources of hazardous materials and wastes because of the proposed project’s construction and operation.

#### **3.8.1 Existing Conditions**

Several Initial Site Assessments (ISAs) and parcel hazardous waste assessments have been conducted along the project corridor. These are summarized in Table 3.8-1. These documents can be found on file at the District 7 offices.

These ISAs and parcel hazardous waste assessments were prepared in general accordance with the applicable American Society for Testing and Materials (ASTM) guidelines in effect at the time of the reports (ASTM E1927-00 for 2002 and ASTM E1527-05 after 2006). The scopes of the ISAs included site reconnaissance; historical research related to use, storage, disposal, or release of hazardous materials or petroleum hydrocarbons; review of environmental databases; and report of findings. The purpose of the ISAs was to identify recognized environmental conditions<sup>9</sup> (RECs).

There are several bridges/overcrossings located along the project corridor. Depending on their ages, these bridges/overcrossings may contain asbestos-containing materials (ACMs) and/or lead-based paint (LBP).

---

<sup>9</sup> Defined as “the presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release, or the material threat of a release of any hazardous substances or petroleum products into structures on the property or into the ground, groundwater, or surface water of the property (ASTM, 2005).”

**TABLE 3.8-1  
SUMMARY OF INITIAL SITE ASSESSMENTS AND HAZARDOUS WASTE ASSESSMENTS FOR PARCELS SUBJECT  
TO ACQUISITION**

Location	RECs Present?	Summary of RECs	Other Hazardous Conditions
Parcel 79812 3250 Big Dalton Avenue APN# 8460-006-043	Yes	This parcel is included in the San Gabriel Valley Area 2 National Priorities List (NPL) site (SGVA2). During the 1940s through the 1980s, carbon tetrachloride, tetrachloroethene, trichloroethene, and other chlorinated solvents were released by a combination of intentional disposal, careless handling during loading and unloading, leaking tanks and pipes, and other means. Volatile organic compounds (VOCs) have been detected in groundwater.	No other hazardous conditions identified.
100 South California Avenue APN #8474-007-030	No	None Identified.	Aerially deposited lead (ADL) – It is possible that upper shallow soils beneath the parcel have been contaminated with ADL from past vehicle emissions.
10 Fashion Plaza APN # 8474-003-081	No	None Identified.	None Identified.
195 South Glendora Avenue APN# 8474-011-046	No	None Identified.	ADL – It is possible that upper shallow soils beneath the parcel have been contaminated with ADL from past vehicle emissions.
950 Lakes Drive APN# 8474-011-028	No	None Identified.	ADL – It is possible that upper shallow soils beneath the parcel have been contaminated with ADL from past vehicle emissions.
110 South California Avenue APN# 8474-007-031	No	None Identified.	ADL – It is possible that upper shallow soils beneath the parcel have been contaminated with ADL from past vehicle emissions.
Parcel 79744 APN# 8848-029-063 Parcel 79745 APN# 8848-029-064	No	None Identified.	ADL – It is possible that upper shallow soils beneath the parcel have been contaminated with ADL from past vehicle emissions.

**TABLE 3.8-1  
 SUMMARY OF INITIAL SITE ASSESSMENTS AND HAZARDOUS WASTE ASSESSMENTS FOR PARCELS SUBJECT  
 TO ACQUISITION**

Location	RECs Present?	Summary of RECs	Other Hazardous Conditions
Parcel 79746 APN# 8848-029-065 Parcel 79747 APN# 8848-029-066 Parcel 79748 APN# 8848-029-062 Parcel 79749 APN# 8848-029-061	No	None Identified.	ADL – It is possible that upper shallow soils beneath the parcel have been contaminated with ADL from past vehicle emissions.
Parcel 79751 APN# 8848-010-011 Parcel 79752 APN# 8848-010-021	No	None Identified.	ADL – It is possible that upper shallow soils beneath the parcel have been contaminated with ADL from past vehicle emissions.
Parcel 79766 APN# 8277-008-034	No	None Identified.	ADL – It is possible that upper shallow soils beneath the parcel have been contaminated with ADL from past vehicle emissions.
Parcel 79824 APN# 8448-019-049	No	None Identified.	ADL – It is possible that upper shallow soils beneath the parcel have been contaminated with ADL from past vehicle emissions.
Parcel 80234 APN# 8451-012-040 Parcel 80235 APN# 8451-012-047	No	None Identified.	ADL – It is possible that upper shallow soils beneath the parcel have been contaminated with ADL from past vehicle emissions.
Parcel 80246 APN# 8448-010-900	No	None Identified.	ADL – It is possible that upper shallow soils beneath the parcel have been contaminated with ADL from past vehicle emissions.
Parcel 79813 APN# 8474-001-012 (Doctors Hospital)	No	This parcel is included in the SGVA2 NPL site. During the 1940s through the 1980s, carbon tetrachloride, tetrachloroethene, trichloroethene, and other chlorinated solvents were released by a combination of intentional disposal, careless handling during loading and unloading, leaking tanks and pipes, and other means. VOCs have been detected in groundwater.	ADL – It is possible that upper shallow soils beneath the parcel have been contaminated with ADL from past vehicle emissions.

### 3.8.2 Regulatory Requirements

Hazardous materials and hazardous wastes are regulated by many state and federal laws. These include not only specific statutes governing hazardous waste, but also a variety of laws regulating air and water quality, human health, and land use.

The primary federal laws regulating hazardous wastes/materials are the Resource Conservation and Recovery Act of 1976 (RCRA) and the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA). The purpose of CERCLA, often referred to as Superfund, is to clean up contaminated sites so that public health and welfare are not compromised. RCRA provides “cradle to grave” regulation of hazardous wastes. Other federal laws include:

- Community Environmental Response Facilitation Act (CERFA) of 1992
- Clean Water Act (CWA)
- Clean Air Act (CAA)
- Safe Drinking Water Act
- Occupational Safety and Health Act (OSHA)
- Atomic Energy Act
- Toxic Substances Control Act (TSCA)
- Federal Insecticide, Fungicide and Rodenticide Act (FIFRA)

In addition to the acts listed above, Executive Order (EO) 12088, Federal Compliance with Pollution Control, mandates that necessary actions be taken to prevent and control environmental pollution when federal activities or federal facilities are involved.

Hazardous waste in California is regulated primarily under the authority of the federal RCRA and the California Health and Safety Code. Other California laws that affect hazardous waste are specific to handling, storage, transportation, disposal, treatment, reduction, cleanup, and emergency planning.

Worker health and safety and public safety are key issues when dealing with hazardous materials that may affect human health and the environment. Proper disposal of hazardous material is vital if it is disturbed during construction of the proposed project.

### 3.8.3 Significance Criteria

Criteria for determining the significance of impacts related to hazardous waste and materials are based on the CEQA Guidelines, Appendix G – Environmental Checklist. Impacts during proposed project construction and operation would be considered significant if they would:

**HAZ-1:** Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.

**HAZ-2:** Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.

**HAZ-3:** Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25-mile of an existing or proposed school.

**HAZ-4:** Be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment.

### **3.8.4 Impacts**

#### **3.8.4.1 No Project Alternative**

I-10 is currently used by vehicles carrying hazardous waste and materials. Spills of these types of materials are handled according to the existing Caltrans Highway Maintenance Department *Hazardous Spills Procedures Manual*, which outlines procedures for protecting the safety of travelers, Caltrans, and other emergency services personnel. The manual also identifies procedures for the protection of the environment and the immediate removal and proper disposal of hazardous or toxic substances from the road.

No change in the volume of vehicles carrying hazardous waste or materials is expected to occur under the No Project Alternative. Ground disturbance associated with the proposed project would not occur; therefore, aerially deposited lead (ADL) would not be a concern. No excavation would occur; therefore, no contact with potentially contaminated groundwater would occur. No demolition of structures would occur; therefore, no LBP or ACMs would be disturbed. There would be no impacts associated with hazardous waste or materials under the No Project Alternative.

#### **3.8.4.2 Proposed Project Alternative**

**Impact HAZ-1: The proposed project would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.**

Under the Proposed Project Alternative, no change in the volume of vehicles carrying hazardous and toxic materials is expected either during construction or operation. As a result, there would be no impacts associated with hazardous waste or materials as a result of implementation of the Proposed Project Alternative.

**Impact HAZ-2: The proposed project could create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.**

There is a slight potential that previously unknown hazardous materials or underground storage tanks (USTs) would be uncovered during construction. Implementation of Caltrans' *Construction Manual* (Caltrans, 2003) would substantially reduce potential impacts on construction workers and the public due to discovery or disturbance of hazardous materials and/or USTs during construction.

The proposed I-10 HOV Lane Project would require the acquisition of ROW that may have been contaminated with hazardous materials based on existing and/or past uses, and that could be disturbed during construction. Required remediation of existing hazardous materials contamination would be addressed during the property acquisition phase and would be conducted consistent with existing federal, state, and local laws and regulations.

Soil contaminated with ADL would be removed and disposed of in accordance with the lead variance issued to Caltrans by the California Department of Toxic Substances Control (DTSC) (effective date July 2009). Per the variance, this material may be reused for embankment fill, retaining wall backfill, and/or excavation of clean soils and backfilling, and capped with an appropriate amount of clean fill material.

There is potential for the generation of ACM waste associated with the demolition and removal of existing bridges and structures on I-10 and of older structures on ROW acquired for the proposed project. Predemolition asbestos sampling and notification are included as part of the proposed project, consistent with the requirements of the SCAQMD. Compliance with existing regulations would reduce the potential for release of asbestos during construction to a level below significant.

The existing yellow thermoplastic and yellow-painted traffic stripes on I-10 may also contain lead and/or chromium. Removed thermoplastic and yellow paint would be disposed of at an appropriate site, in accordance with local, state, and federal laws. This would reduce the potential for adverse impacts associated with any potential lead- and chromium-containing stripes to a level below significant.

**HAZ-3: The proposed project is not expected to emit hazardous emissions or require handling of hazardous or acutely hazardous materials, substances, or waste within 0.25-mile of an existing or proposed school.**

While there are several schools located within 0.25-mile of the project corridor, impacts associated with mobile-source air toxics (MSAT) are not expected to be significant given the following considerations: (1) there is already an existing freeway in the study area; (2) highway improvements would not move the freeway appreciably closer to these schools; and (3) based on other similar HOV projects, studies have shown that, depending on the constituent, only slight percentage increases/decreases in MSAT emissions are projected to occur with the HOV lanes in operation.

**HAZ-4:** The proposed project is located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5; however, it would not create a significant hazard to the public or the environment.

Sites 1a, 1b, 5, and 15 are located immediately above the plume identified for the San Gabriel Valley Area 2 National Priorities List (NPL) site. Groundwater within this vicinity may be contaminated; however, based on preliminary construction plans, excavation activity would not likely reach the existing groundwater table located 60 feet or more bgs elevation. Should encroachment into SGVA2 occur, appropriate procedures would be followed to provide adequate protection to works and the public.

### **3.8.5 Mitigation Measures**

**MM HAZ-1:** Groundwater is not expected to be disturbed and/or disposed during construction activities. If groundwater needs to be disturbed and/or extracted during construction, then appropriate disposal and treatment (if required) options will be determined through coordination with the regulatory agencies in order to prevent possible cross contamination. If contamination is found, then a work plan shall be prepared by a registered geotechnical engineer to protect the health of construction workers.

**MM HAZ-2:** ADL soil management will be evaluated for the applicability of the lead variance issued to Caltrans by DTSC.

**MM HAZ-3:** Bridges and structures shall be surveyed to screen for ACMs and LBP prior to construction activities. If ACMs are found, then the contractor will comply with the SCAQMD Rule 1403 notification and removal processes. In addition, disposal of ACMs will be handled in compliance with local, state, and federal requirements. If LBP and/or heavy metals are found, then the contractor shall comply with local, state, and federal rules and regulations for notification, removal process, and disposal activities.

**MM HAZ-4:** Any hazardous materials or wastes encountered before or during the demolition stage of the proposed project shall be disposed according to current regulatory guidelines.

**MM HAZ-5:** A worker Health and Safety Plan (HSP) that meets the provisions of California Code of Regulations (Title 22, Section 5192) shall be developed by the proposed project contractor. HSP procedures will address the identification, excavation, handling, and disposal of hazardous wastes and materials that may be found in construction areas.

**MM HAZ-6:** Removed thermoplastic and yellow paint will be disposed at an appropriate landfill in accordance with local, state, and federal laws.

### **3.8.6 Level of Significance after Mitigation**

With the incorporation of the recommended mitigation measures MM HAZ-1 through MM HAZ-6, the proposed project's hazardous waste/materials impacts would be less than significant.

### **3.9 Hydrology and Water Quality**

This section includes an analysis of the potential environmental impacts associated with the proposed project on hydrology, floodplain, and water quality concerns. The proposed project has been extensively analyzed by Caltrans over the past several years, and these studies have been used in part to develop this section. Where appropriate, however, the analyses have been updated to keep pace with the comprehensive evolution of water quality control requirements that have occurred since the proposed project was first assessed in the early 1990s.

#### **3.9.1 Existing Conditions**

Regionally, the proposed project is located within the lower portion of the San Gabriel River Basin. This basin is bounded on the east by the San Jose Hills, which form a natural topographic boundary to the north between the San Gabriel and San Bernardino mountains of the Central Transverse Ranges Geomorphic Province.

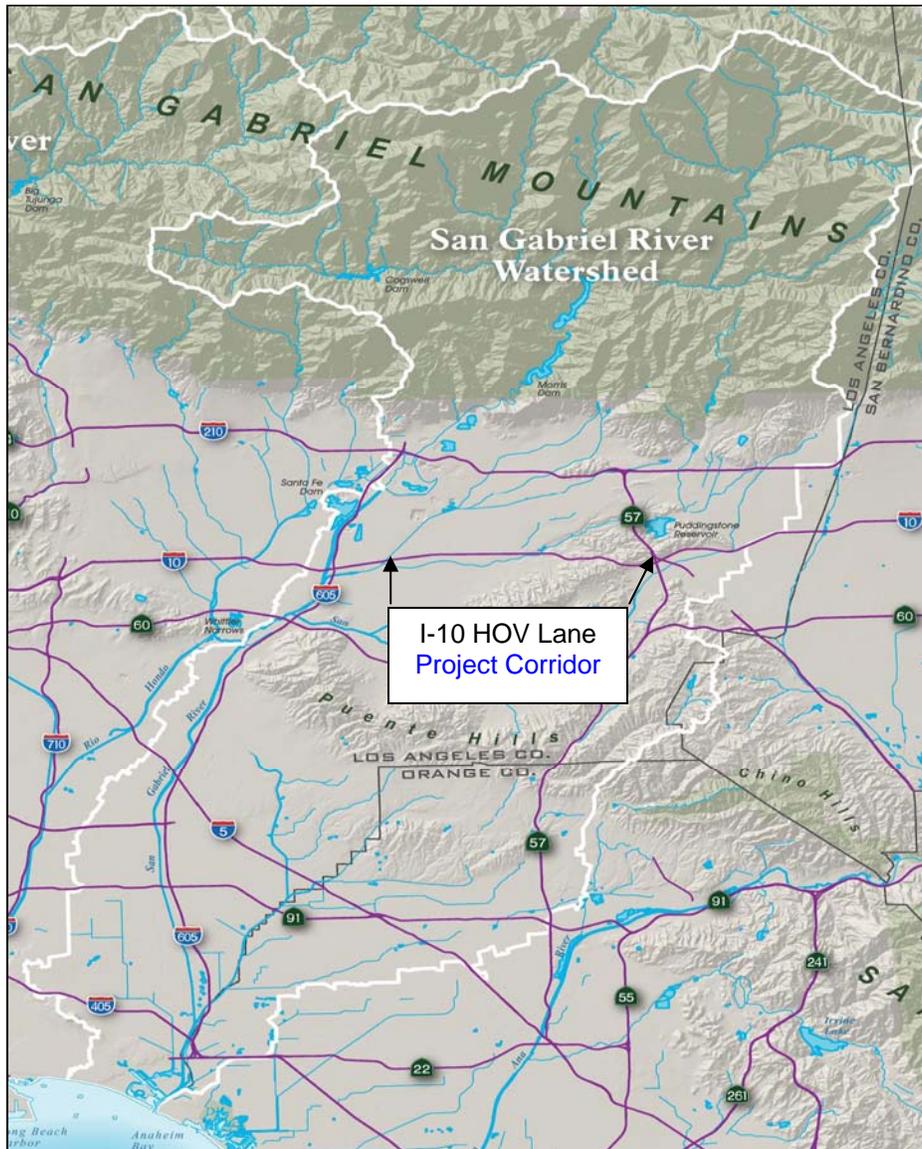
##### **3.9.1.1 Watershed Characteristics**

The project site is predominantly located within the San Gabriel River Watershed, shown in Figure 3.9-1. The San Gabriel River, which flows for approximately 58 miles, drains a large coastal stream system in southern California (LACDPW, 2011) from headwaters in the San Gabriel Mountains to the ocean at Seal Beach. The total watershed area is approximately 689 square miles in eastern Los Angeles County and northwestern Orange County. In its upper reaches, the watershed consists of mostly undisturbed woodland and riparian habitats, but it also contains a series of flood control dams. The urbanizing middle portion of the watershed has been extensively modified to control flood and debris flows, and it includes expansive spreading grounds used for water recharge. The lower part of the watershed, which the San Bernardino Freeway traverses, is substantially urbanized. The river channel is concrete lined across the San Gabriel Valley.

The project corridor traverses two hydrologic subareas (HSAs) within the San Gabriel River Watershed: Main San Gabriel – HSA 405.41 and San Jose – HSA 405.51. At the far eastern end of the corridor in the vicinity of Cal Poly Pomona, the freeway enters a portion of the Chino HSA 481.20, which drains to the Santa Ana River Watershed. (LARWQCB, 1995) Annual precipitation in the watershed ranges between 15 and 31 inches, with an average of approximately 19 inches in the proposed project area.

Land use in the watershed is diverse and ranges from open space and agriculture to heavy industry. Although agriculture was historically the predominant land use, it now accounts for only a small percentage of the land use area. Pollutants from dense clusters of residential and commercial activities have impaired water quality in the middle and lower watersheds. Tertiary-treated effluent from several sewage treatment plants enters the river in its middle reaches (LARWQCB, 2000).

**Figure 3.9-1**  
**Project Location within San Gabriel River Watershed**



Source: LASGRWC, 2010.

### 3.9.1.2 Surface Water

Walnut Creek is the primary water course within the proposed project vicinity. It is an intermittent stream with flows occurring mostly between October and March. Discharging from Puddingstone Reservoir in San Dimas, the creek flows southwesterly in an earthen channel through Walnut Creek Wilderness Park before crossing I-10 in a reinforced concrete box structure approximately 0.2-mile west of Grand Avenue. After crossing I-10, Walnut Creek flows westerly in a concrete channel as it meanders between a few hundred feet and almost 0.5-mile to the south of I-10. Walnut Creek discharges to the San Gabriel River just southwest of the I-605/I-10 interchange. The channelized portion of the creek is

approximately 35 feet wide and 15 to 20 feet deep. This channel was designed to convey flows of up to 9,000 cubic feet per second (cfs) (Caltrans, 1993b).

Additional surface waters within the proposed project vicinity include Charter Oak Creek and Big Dalton Wash. Big Dalton Wash is a concrete-lined, rectangular drainage channel that collects stormwater from the region north of I-10 and crosses I-10 just west of the project corridor at Francisquito Avenue before discharging to Walnut Creek. This channel is capable of containing a 100-year flow of approximately 28,500 cfs. Charter Oak Creek, also a tributary of Walnut Creek, crosses I-10 just east of Citrus Street. There is also a minor unnamed drainage channel that crosses I-10 in an earthen channel to the west of Forest Lawn Memorial Park Cemetery.

There are many storm drains along this stretch of I-10 that flow from north to south and discharge to Walnut Creek south of the freeway. These storm drains run parallel to major streets crossing the freeway, and they all flow in closed conduits or box culverts. None of these storm drains are visible from the street level. All storm drains have been designed to carry the maximum flood flows as per County of Los Angeles design criteria (Caltrans, 1993b). Within the project corridor storm drain inlets are located on the freeway facility and local streets.

Existing beneficial uses for Walnut Creek, as designated in the Basin Plan, are for Wildlife Habitat and Wetlands. Surface water quality within the proposed project area is currently compromised from stormwater running off paved highway and roadway surfaces, medians, shoulders, and side slopes. Discharged water enters surface water systems either via outfall structures or localized runoff into scheduled detention structures and receiving waters. Walnut Creek is on the State's '2006 CWA Section 303(d) List of Water Quality Limited Segments Requiring TMDLs' for pH and toxicity (SWRCB, 2006); therefore, it is subject to total maximum daily load (TMDL) discharge restrictions for these constituents.

### **3.9.1.3 Groundwater**

The proposed project site overlies the San Gabriel Valley Groundwater Basin (LARWQCB, 1995). The basin covers a surface area of approximately 255 square miles. The storage capacity of the basin has been estimated at approximately 10.7 million acre feet. This basin is bounded on the north by the Raymond Fault and the contact between Quaternary sediments and consolidated basement rocks of the San Gabriel Mountains. Exposed consolidated rocks of the Repetto, Merced, and Puente hills bound the basin on the south and west, with the Chino and San Jose faults forming the eastern boundary (DWR, 2004).

Depth to groundwater varies widely throughout the project corridor, from 60 to 500 feet below ground surface (bgs) elevation. The general quality of groundwater in the region has been substantially degraded by past disposal/discharge activities within specific areas of the basin. Volatile organic compounds (VOCs) from industry, as well as nitrates from subsurface sewage disposal and agriculture, are the primary groundwater contaminants. In the mid-

1990s, it was estimated that approximately 20 percent of groundwater production capacity for municipal purposes was shut down due to this pollution (LARWQCB, 1995).

#### **3.9.1.4 Floodplains**

One-hundred year flood flows within the proposed project area are contained within the major water courses described above and maintained by the Los Angeles County Department of Public Works (LACDPW). A review of 2008 flood insurance rate maps prepared by the Federal Emergency Management Agency (FEMA) indicates the entire project area is within Zone X. These are areas protected from the 100-year flood event by levees that prevent overtopping of adjacent flood channels. This designation is consistent with conclusions reached in other project-specific floodplain studies prepared in 1993-94.

### **3.9.2 Regulatory Requirements**

#### **3.9.2.1 Federal Laws and Regulations**

**Clean Water Act.** In 1972, Congress amended the Federal Water Pollution Control Act, making the addition of pollutants to the waters of the United States from any point source unlawful unless the discharge is in compliance with a National Pollutant Discharge Elimination System (NPDES) permit. Known today as the Clean Water Act (CWA), Congress has amended it several times. In the 1987 amendments, Congress directed discharges of storm water from municipal and industrial/construction point sources to comply with the NPDES permit scheme. Important CWA sections are:

- Sections 303 and 304 require states to promulgate water quality standards, criteria, and guidelines.
- Section 401 requires an applicant for a federal license or permit to conduct any activity which may result in a discharge to waters of the U.S. to obtain certification from the State that the discharge will comply with other provisions of the Act. (Most frequently required in tandem with a Section 404 permit request. See below.)
- Section 402 establishes the NPDES, a permitting system for the discharges (except for dredge or fill material) of any pollutant into waters of the U.S. Regional Water Quality Control Boards (RWQCB) administer this permitting program in California. Section 402(p) requires permits for discharges of storm water from industrial/construction and municipal separate storm sewer systems (MS4s).
- Section 404 establishes a permit program for the discharge of dredge or fill material into waters of the U.S. This permit program is administered by the U.S. Army Corps of Engineers (USACE).

The objective of the CWA is “to restore and maintain the chemical, physical, and biological integrity of the Nation’s waters.”

USACE issues two types of 404 permits: Standard and General permits. There are two types of General permits, Regional permits and Nationwide permits. Regional permits are issued for a general category of activities when they are similar in nature and cause minimal environmental effect. Nationwide permits are issued to authorize a variety of minor project activities with no more than minimal effects.

There are two types of Standard permits: Individual permits and Letters of Permission. Ordinarily, projects that do not meet the criteria for a Nationwide Permit may be permitted under one of USACE's Standard permits. For Standard permits, the USACE decision to approve is based on compliance with U.S. EPA's Section 404 (b)(1) Guidelines (U.S. EPA CFR 40 Part 230), and whether permit approval is in the public interest. The Section 404(b)(1) Guidelines were developed by the U.S. EPA in conjunction with USACE, and allow the discharge of dredged or fill material into the aquatic system (waters of the U.S.) only if there is no practicable alternative which would have less adverse effects. The Guidelines state that USACE may not issue a permit if there is a least environmentally damaging practicable alternative (LEDPA), to the proposed discharge that would have lesser effects on waters of the U.S., and not have any other significant adverse environmental consequences. Per Guidelines, documentation is needed that a sequence of avoidance, minimization, and compensation measures has been followed, in that order. The Guidelines also restrict permitting activities that violate water quality or toxic effluent standards, jeopardize the continued existence of listed species, violate marine sanctuary protections, or cause "significant degradation" to waters of the U.S. In addition every permit from the USACE, even if not subject to the Section 404(b)(1) Guidelines, must meet general requirements. See 33 CFR 320.4. A discussion of the LEDPA determination, if any, for the document is included in the Wetlands and Other Waters section.

**Executive Order (EO) 11988.** EO 11988 (Floodplain Management) directs all federal agencies to refrain from conducting, supporting, or allowing actions in floodplains unless it is the only practicable alternative. The FHWA requirements for compliance are outlined in 23 CFR 650 Subpart A.

In order to comply, the following must be analyzed:

- The practicability of alternatives to any longitudinal encroachments
- Risks of the action
- Impacts on natural and beneficial floodplain values
- Support of incompatible floodplain development
- Measures to minimize floodplain impacts and to preserve/restore any beneficial floodplain values impacted by the project

The base floodplain is defined as “the area subject to flooding by the flood or tide having a 1 percent chance of being exceeded in any given year.” An encroachment is defined as “an action within the limits of the base floodplain.”

### **3.9.2.2 State Water Quality Laws and Regulations**

**Porter-Cologne Water Quality Control Act (California Water Code).** California’s Porter-Cologne Act, enacted in 1969, provides the legal basis for water quality regulation within California. This Act requires a “Report of Waste Discharge” for any discharge of waste (i.e., liquid, solid, or gaseous) to land or surface waters that may impair beneficial uses for surface and/or groundwater of the state. It predates the CWA and regulates discharges to waters of the State. Waters of the State include more than just Waters of the U.S., like groundwater and surface waters not considered Waters of the U.S. Additionally, it prohibits discharges of “waste” as defined and this definition is broader than the CWA definition of “pollutant”. Discharges under the Porter-Cologne Act are permitted by Waste Discharge Requirements (WDRs) and may be required even when the discharge is already permitted or exempt under the CWA.

The State Water Resources Control Board (SWRCB) and RWQCBs are responsible for establishing the water quality standards (i.e., objectives and beneficial uses) required by the CWA and regulating discharges to ensure compliance with the water quality standards. Details regarding water quality standards in a project area are contained in the applicable RWQCB Basin Plan. States designate beneficial uses for all water body segments, and then set criteria necessary to protect these uses. Consequently, the water quality standards developed for particular water segments are based on the designated use and vary depending on such use. In addition, each state identifies waters failing to meet standards for specific pollutants, which are state listed in accordance with CWA Section 303(d). If a state determines that waters are impaired for one or more constituents and the standards cannot be met through point source controls, the CWA requires the establishment of TMDLs. TMDLs specify allowable pollutant loads from all sources (i.e., point, nonpoint, and natural) for a given watershed.

**State Water Resources Control Board and Regional Water Quality Control Boards.** The SWRCB administers water rights, water pollution control, and water quality functions throughout the state. RWCQBs are responsible for protecting beneficial uses of water resources within their regional jurisdiction using planning, permitting, and enforcement authorities to meet this responsibility.

- **NPDES Program**

- Municipal Separate Storm Sewer Systems

- Section 402(p) of the CWA requires the issuance of NPDES permits for five categories of storm water dischargers, including Municipal Separate Storm Sewer Systems (MS4s). The U.S. EPA defines an MS4 as any conveyance or system of

conveyances (roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, human-made channels, and storm drains) owned or operated by a state, city, town, county, or other public body having jurisdiction over storm water, that are designed or used for collecting or conveying storm water. The SWRCB has identified the Caltrans as an owner/operator of an MS4 by the SWRCB. This permit covers all Caltrans rights-of-way, properties, facilities, and activities in the state. The SWRCB or the RWQCB issues NPDES permits for five years, and permit requirements remain active until a new permit has been adopted.

The Caltrans's MS4 Permit, under revision at the time of this update, contains three basic requirements:

1. The Caltrans must comply with the requirements of the Construction General Permit (see below);
2. Caltrans must implement a year-round program in all parts of the State to effectively control storm water and non-storm water discharges; and
3. Caltrans storm water discharges must meet water quality standards through implementation of permanent and temporary (construction) Best Management Practices (BMPs) and other measures.

To comply with the permit, Caltrans developed the Statewide Storm Water Management Plan (SWMP) to address storm water pollution controls related to highway planning, design, construction, and maintenance activities throughout California. The SWMP assigns responsibilities within Caltrans for implementing storm water management procedures and practices as well as training, public education and participation, monitoring and research, program evaluation, and reporting activities. The SWMP describes the minimum procedures and practices Caltrans uses to reduce pollutants in storm water and non-storm water discharges. It outlines procedures and responsibilities for protecting water quality, including the selection and implementation of BMPs. The proposed Project will be programmed to follow the guidelines and procedures outlined in the latest SWMP to address storm water runoff.

Part of and appended to the SWMP is the Storm Water Data Report (SWDR) and its associated checklists. The SWDR documents the relevant storm water design decisions made regarding project compliance with the MS4 NPDES permit. The preliminary information in the SWDR prepared during the Project Initiation Document (PID) phase will be reviewed, updated, confirmed, and if required, revised in the SWDR prepared for the later phases of the project. The information contained in the SWDR may be used to make more informed decisions regarding the selection of BMPs and/or recommended avoidance, minimization, or mitigation measures to address water quality impacts.

#### Construction General Permit

Construction General Permit (Order No. 2009-009-DWQ), adopted on September 2, 2009, became effective on July 1, 2010. The permit regulates storm water discharges from construction sites which result in a Disturbed Soil Area (DSA) of one acre or greater, and/or are smaller sites that are part of a larger common plan of development. By law, all storm water discharges associated with construction activity where clearing, grading, and excavation results in soil disturbance of at least one acre must comply with the provisions of the General Construction Permit. Construction activity that results in soil disturbances of less than one acre is subject to this Construction General Permit if there is potential for significant water quality impairment resulting from the activity as determined by the RWQCB. Operators of regulated construction sites are required to develop storm water pollution prevention plans; to implement sediment, erosion, and pollution prevention control measures; and to obtain coverage under the Construction General Permit.

The 2009 Construction General Permit separates projects into Risk Levels 1, 2, or 3. Risk levels are determined during the planning and design phases, and are based on potential erosion and transport to receiving waters. Requirements apply according to the Risk Level determined. For example, a Risk Level 3 (highest risk) project would require compulsory storm water runoff pH and turbidity monitoring, and before construction and after construction aquatic biological assessments during specified seasonal windows. For all projects subject to the permit, applicants are required to develop and implement an effective Storm Water Pollution Prevention Plan (SWPPP). In accordance with Caltrans' Standard Specifications, a Water Pollution Control Plan (WPCP) is necessary for projects with DSA less than one acre.

#### Section 401 Permitting

Under Section 401 of the Clean Water Act (CWA), any project requiring a federal license or permit that may result in a discharge to a water body must obtain a 401 Certification, which certifies that the project will be in compliance with State water quality standards. The most common federal permits triggering 401 Certification are

CWA Section 404 permits issued by the U.S. Army Corps of Engineers (USACE). The 401 permit certifications are obtained from the appropriate Regional Water Quality Control Board (RWQCB), dependent on the project location, and are required before USACE issues a 404 permit.

In some cases the RWQCB may have specific concerns with discharges associated with a project. As a result, the RWQCB may issue a set of requirements known as Waste Discharge Requirements (WDRs) under the State Water Code that define activities, such as the inclusion of specific features, effluent limitations, monitoring, and plan submittals that are to be implemented for protecting or benefiting water quality. WDRs can be issued to address both permanent and temporary discharges of a project.

### **3.9.3 Significance Criteria**

Criteria for determining the significance of impacts related to hydrology, floodplains, and water quality are based on the CEQA Guidelines, Appendix G – Environmental Checklist. Construction or operation impacts would be considered significant if they were to:

**WTR-1:** Violate any water quality standards or waste discharge requirements;

**WTR-2:** Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level;

**WTR-3:** Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner that would result in substantial erosion or siltation on- or off-site;

**WTR-4:** Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding on- or off-site;

**WTR-5:** Create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional source of polluted runoff;

**WTR-6:** Otherwise substantially degrade water quality;

**WTR-7:** Place housing within a 100-year flood hazard area as mapped on a FEMA map or other flood hazard delineation map;

**WTR-8:** Place within a 100-year flood hazard area structures that would impede or redirect flood flows;

**WTR-9:** Expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam; or

**WTR-10:** Inundation by seiche, tsunami, or mudflow.

### 3.9.4 Impacts

#### 3.9.4.1 No Project Alternative

The No Project Alternative would not include construction and operation of HOV lanes within the subject corridor. While no construction-related water quality impacts would occur, the U.S. District Court, Central District of California has mandated via Stipulation and Order (Case No. 93-6073-ER [JRX]) that Corridor Storm Water Management Studies be prepared on the District 7 drainage system for freeway corridors situated in Los Angeles and Ventura counties. A separate study of I-10, to be completed either with or without the proposed project, will be prepared to identify appropriate sites for infiltration devices, media filters, detention devices, biofiltration strips, biofiltration swales, and other Treatment BMPs. These BMPs would be incrementally constructed over time in coordination with future freeway improvements.

#### 3.9.4.2 Proposed Project Alternative

**Impact WTR-1: The proposed project would not violate any water quality standards or waste discharge requirements.**

**Temporary.** The greatest potential for impacts to water quality would be during project construction when slope erosion and siltation would increase in the drainage area. With BMP controls, runoff from the site is not expected to channelize and cause gulying and scour; however, new slopes would be created and existing slopes would be modified, which might require concentrated flow conveyance systems. Siltation discharges from construction activities could result in increased nutrient loading and total suspended solids concentration. Without appropriate controls, these construction impacts would affect all drainages downstream of the project area and pose a potentially adverse impact to water quality.

Working details and standard specification provisions for vegetated and hard surface protection systems would be reviewed and provided during the Plans, Specifications, and Estimates (PS&E) phase of project development. With implementation of a project-specific SWPPP that identifies construction site BMPs, sediment discharges would be minimized, and no water quality standards or waste discharge requirements would be violated.

Construction activities would result in additional polluted runoff because of construction-related pollution and waste discharge. Pollutants associated with construction activities, including gasoline, oil, rubber particles, herbicides, pesticide, paint, adhesives, tar, and other chemicals, and the generation of construction-related waste materials, have the potential to affect surface water quality downstream of the project construction site. The chemical contamination of site runoff during construction activities would pose a potentially adverse

impact to water quality. The SWPPP would include controls to be implemented for nonstormwater discharges/good housekeeping practices to minimize the potential effect of these discharges during construction.

During the construction stage, all disturbed slopes would be vegetated, and surface water from the project site would be diverted to designed collection and permanent treatment facilities along the roadway. This work would minimize the effects of erosion and downstream siltation on any of the receiving waters once the HOV lanes are operational.

**Permanent.** As discussed, the existing freeway is paved in the median under current conditions; therefore, the proposed project would not entail addition of extensive new impervious surface area. It is anticipated that the hydraulic efficiency of the stormwater control and drainage system would be improved under the proposed project, resulting in a system capable of treatment to the standard for water quality flows as required in Caltrans' Project Planning and Design Guide.

With implementation of biofiltration strips/swales, detention devices, infiltration devices, media filters, or any combination thereof, the design of the proposed project aims to treat all of the onsite runoff water quality volume (WQV). In addition, where possible, the runoff from all bridges would be conveyed to Treatment BMPs. No bridge runoff would be discharged directly into waterways; therefore, the proposed project would not substantially degrade water quality. This would be an overall benefit to the environment compared to the existing system.

The project would not increase activities commensurate with dry weather flows; therefore, there should be no increase of dry weather flows (Caltrans, 2002b).

According to the Caltrans Project Planning and Design Guide (Caltrans 2007), pollutants that are identified as targeted design constituents (TDCs) are treatable by currently available Caltrans-approved Treatment BMPs. A project must consider treatment to control a TDC when an affected water body within the project limits or within the subwatershed is on the Section 303(d) list for one or more of these constituents. When it is determined that no TDCs are identified for the receiving waters, the Project Planning and Design Guide recommends considering all Caltrans-approved Treatment BMPs for general purpose pollutant removal. The applicability of all nine Caltrans-approved Treatment BMPs would be analyzed as part of this project. Walnut Creek within the proposed project vicinity is on the Section 303(d) list for pH and toxicity; however, it is noted that pH and toxicity are not pollutants that are generated from roadway surfaces.

With the combination of Treatment BMPs and various design pollution prevention BMPs (e.g., providing benches or terraces on high cut and fill slopes, rounding slopes, flaring the ends of outlets, and incorporating headwalls, transition structures, and splash walls where necessary), water quality would not be substantially degraded.

**Impact WTR-2: The proposed project would not affect groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level.**

The proposed project site overlies the San Gabriel Valley Groundwater Basin (LARWQCB, 1995). Storm flows during both project construction and operation would be controlled before discharge to existing storm drain infrastructure. Construction activities would not impact groundwater quantity or quality (Caltrans, 2002b). Reasons for this conclusion include: (1) existing site is already predominantly covered with impervious surfaces; (2) groundwater in proposed project area is at considerable depth (i.e., greater than 50 feet bgs); and (3) the proposed project would not use groundwater for any purposes. Given these considerations, the proposed project would not be expected to interfere substantially with groundwater recharge and would not create a net deficit in aquifer volume or lower the local groundwater table level; therefore, groundwater resources would not be adversely affected by implementing the proposed project.

**Impact WTR-3: The proposed project would not substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner that would result in substantial erosion or siltation on- or off-site.**

The proposed project would result in only minor changes to the existing drainage pattern within the subject I-10 corridor, and with the aforementioned BMP controls would not result in related erosion or downstream siltation either on- or off-site. In addition, the Caltrans Highway Design Manual requires the design of modified highways to direct storm and landscaping runoff to storm drains and to avoid unnecessary flow of water over unpaved and nonlandscaped areas; therefore, the proposed project would not result in substantial impacts related to erosion.

**Impact WTR-4: The proposed project would not substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding on- or off-site.**

As mentioned above, the proposed project would result in only minor changes to the existing drainage pattern within the subject I-10 corridor. Walnut Creek crosses the project corridor in a reinforced concrete box culvert to the west of Grand Avenue. An unnamed drainage also crosses the project corridor west of Forest Lawn Memorial Park Cemetery in an earth-lined channel. Because no permanent structures would be placed within these watercourses, the proposed project would not result in adverse impacts related to changes in water courses. It would be determined during detailed design stage whether temporary encroachment at Walnut Creek or the aforementioned unnamed drainage would be required during construction.

In general, a floodplain cannot be altered in any way until it has been shown that such alteration would pass the base flood without significant damage to either the floodplain or surrounding property. Bridge abutments or embankment cannot encroach on a regulatory floodway. This project would discharge to both lined and unlined channels. Avoidance and minimization measures to address these considerations are described below.

**Impact WTR-5: The proposed project would not create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional source of polluted runoff.**

Most of the locations where new construction is expected to occur are currently paved. The Design Manual requires that 100 percent of potential runoff from new impervious surface areas associated with the proposed project be treated before off-site discharge. In addition, current drainage facilities within the project area have been determined to have adequate capacity for the incremental increase in runoff associated with the proposed project; however, drainage facility upgrades would be made, where required, to provide improved treatment of runoff. Drainage facilities would be designed to be consistent with established drainage plans for the area.

**WTR-6: The project would not substantially degrade water quality.**

See response to WTR-1. Walnut Creek, which drains Puddingstone Reservoir before crossing I-10 west of Grand Avenue and traversing parallel to and south of the freeway, is listed as a Section 303(d) water body for pH and toxicity. BMP controls for pH and toxics would be implemented during construction. Considering traffic volume is expected to grow substantially in the future, the amount of motor vehicle-related pollutants discharged into the watershed and drainage channels from impervious surfaces would increase either with or without implementation of the proposed project. Because so much of the existing proposed project site is impervious, the increased area of impervious surfaces would be small. The project design would include permanent BMPs to control and minimize discharge of pollutants to the watershed. Given these considerations, the proposed project would not have a significant impact on local water resources and quality.

The groundwater table in this area is at depths from approximately 50 to 500 feet bgs elevation. Because there are only limited areas of pervious surfaces in the existing I-10 ROW, this area is not a major source of groundwater recharge; therefore, the proposed project would not result in any substantial change in the rate or amount of groundwater recharge. Given the depth to groundwater and the existing impervious nature of the site, it is concluded that the proposed project would not impact groundwater quality in this area.

**WTR-7: The project would not place housing within a 100-year flood hazard area as mapped on a FEMA map or other flood hazard delineation map.**

The proposed project would not involve construction of housing within the 100-year flood hazard area.

**WTR-8: The project would not place within a 100-year flood hazard area structures that would impede or redirect flood flows.**

See response to WTR-4. A review of 2008 flood insurance rate maps prepared by FEMA indicates the entire project area is within Zone X. These are areas protected from the 100-year flood event by levees that prevent overtopping of adjacent flood channels. This designation is consistent with conclusions reached in other project-specific floodplain studies prepared in 1993-94. The design of the proposed project at drainage crossings and stormwater facilities would be coordinated with LACDPW and the Public Works Departments of the local jurisdictions.

The project would involve new HOV lanes, auxiliary lanes, and other improvements mostly located within the existing freeway ROW. The project does not involve new highways or new freeway access locations that would foster incompatible developments within floodplains. To minimize impacts on existing flooding levels, hydraulic modeling would be required to evaluate the effect of proposed improvements in these areas, along with flood mitigation where necessary.

Runoff volumes would not increase substantially because there would be only a minor increase in impervious surface area on I-10 as a result of the proposed project. Runoff from I-10, including the HOV lanes, would be accommodated by the existing storm drain system; therefore, the proposed project would not result in substantial changes in the amount of water in surface water bodies.

**WTR-9: The project would not expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam.**

I-10 within the project area is located within the inundation areas of three upstream reservoirs: Santa Fe, San Dimas, and Puddingstone dams. Santa Fe Dam, located in the City of Irwindale approximately 2.5 miles north of I-10, is a 'dry dam' operated by USACE. This facility is used for groundwater recharge, control of heavy runoff, and as a backup for upstream reservoirs. San Dimas Dam, located in the Angeles National Forest north of the City of San Dimas, has a rated capacity of 1,496 acre-feet. Puddingstone Dam, located at Frank G. Bonelli County Regional Park approximately 1-mile north of I-10, has a limited capacity by agreement of 6,083 acre-feet. Flows released from this reservoir discharge to Walnut Creek. The latter two facilities are managed by LACDPW. The dam owners/operators have developed Emergency Action Plans for each of these facilities, as required by FEMA (City of West Covina, 2004). The proposed project would not increase exposure of the existing freeway to the flood water effects in the very unlikely event of failure on one of these dams. The very small risk associated with failure of one of these dams

could affect a wide swath of the project area, not just the existing I-10 with future improvements; therefore, the proposed project would not likely result in an increase in exposure of people or structures to a significant risk of loss, injury, or death involving flooding.

**WTR-10: The project would not be constructed in an area that is subject to inundation by seiche, tsunami, or mudflow.**

The project site is not located on a lake and is approximately 30 miles inland from the nearest coastal area, so there is no potential for inundation by seiche or tsunami. See response to Section 3.7.4.2 regarding the potential impact associated with a mudflow.

Project implementation would not require the use of septic tanks or alternative wastewater disposal systems; therefore, no impacts associated with use of a septic system would occur.

### **3.9.5 Mitigation Measures**

No mitigation measures are required for hydrology or water quality; however, the following measures will be included to avoid or minimize impacts associated with hydrology and water quality issues:

- As part of the I-10 HOV Lane Project final design, Caltrans will conduct a detailed hydrologic analysis to determine if any flood control devices will require modification to protect the project site and facility from design flood levels. The final design of these flood control devices will be coordinated with all affected cities and the LACDPW.
- Caltrans will coordinate with FEMA prior to completion of the final project design to confirm any necessary revisions to the FEMA Flood Insurance Rate Maps or FEMA Special Flood Hazard Areas maps.
- For impacts WTR-1 and WTR-6, no mitigation measures are required during construction, assuming Contractor conformance to current federal, state, and local regulatory requirements to minimize impacts to water resources and water quality.
- The Caltrans SWMP describes BMPs and practices to reduce the discharge of pollutants associated with the stormwater drainage systems of state highways, facilities, and activities. The completed project plans would incorporate all necessary Maintenance BMPs (Category IA), Design Pollution BMPs (Category IB), and Treatment BMPs (Category III) to meet the maximum extent practicable requirements. As part of the project design development, a Storm Water Data Report (SWDR) will be prepared to document the decision-making process relating to the selection and implementation of BMPs. The SWDR will be updated as the project progresses towards final design.

- BMPs to be incorporated into the project during construction will be required for soil stabilization (erosion control), sediment control, temporary tracking control, wind erosion control, and non-stormwater runoff management. Primary BMPs anticipated for the proposed action shown in Table 3.9-1.
- A written site-specific Construction Site Monitoring Plan (CSMP) will be developed prior to commencement of construction activities, and it shall be revised as necessary to reflect project revisions. The CSMP will be developed to meet the specific requirements and objectives identified in the General Permit for the proposed project's risk level to be identified in the SWPPP. The CSMP shall include monitoring procedures and instructions, location maps, forms, and checklists, and a description of the project site's watershed, including drainage patterns and all site discharge locations. The CSMP will include specific details about sample collection frequency; sample constituents; sample collection methodologies, including clean sample collection techniques; and use of pH and turbidity field meters and field quality assurance/quality control.

**Table 3.9-1  
 Best Management Practices Applicable to the Proposed Project**

<b>BMP Purpose</b>	<b>Best Management Practice</b>	<b>ID Number</b>	<b>Description</b>
Erosion Control	Scheduling	SS-1	Sequence construction activities minimize soil exposed at any one time
	Preservation of Existing Vegetation	SS-2	Preserve existing vegetation where required and feasible
	Geotextiles, Plastic Covers, and Erosion Control Blankets/Mats	SS-7	Plastic sheeting will be used to cover soil stockpiles; geotextile blankets will be used to provide soil stabilization
	Wind Erosion Control	WE-1	Potable water will be applied to disturbed soil areas to control dust
Sediment Control	Temporary Silt Fence	SC-1	Silt fences will be deployed along toe of exterior cut and fill slopes
	Temporary Check Dam	SC-4	Check dams will be installed along temporary earthen channels
	Temporary Gravel Bag Berm	SC-6	Gravel bag berms will be installed along temporary earthen swales
	Street Sweeping	SC-7	Sweeping will be conducted during export/import of dirt and at end of shift
	Temporary Drain Inlet Protection	SC-10	Storm drain inlet protection will be used at all internal inlets to the system
Tracking Control	Temporary Construction Entrance	TC-1	Stabilize all entrances/exits to construction site staging areas
Non-stormwater Control	Water Control and Conservation	NS-1	Water application rates will be minimized to prevent runoff & ponding
	Paving, Sealing, Sawcutting and Grinding Operations	NS-3	During these operations, all inlets will be covered with plastic; vacuum will be used to collect sawcutting residue
	Vehicle and Equipment Washing	NS-8	Vehicles and equipment will be washed at an appropriate disposal facility
	Vehicle and Equipment Fueling	NS-9	Drip pans will be used during mobile fueling; spill kits will be kept on fuel truck during fueling
	Vehicle and Equipment Maintenance	NS-10	Drip pans will be used during all vehicle equipment and maintenance activities
	Concrete Curing and Finishing	NS-12, NS-14	Excess water from curing will be contained within the excavation area

Source: Caltrans, 2011.

For impacts WTR-8 and WTR-9, existing regulations require that the project be designed to avoid or minimize impacts to floodplains. See also above MMs WTR-1 and WTR-2. Given this consideration, no mitigation is required.

No mitigation measures are required for impacts WTR-2, WTR-3, WTR-5, WTR-7, and WTR-10.

### **3.9.6 Level of Significance after Mitigation**

Considering the extensive laws and regulations in place to protect the environment from water pollution and floodplain damage, it is concluded that hydrology and water quality impacts due to the proposed project would be less than significant.

### 3.10 Land Use

This section assesses potential land use impacts associated with the proposed project. The analysis includes a discussion of existing land uses by local jurisdiction within 0.25-mile of the project corridor (defined for analysis purposes as the ‘study area’). In addition, potential property acquisitions along the ROW are addressed. Information for this section was obtained from the Interstate 10 High Occupancy Vehicle Lanes Community Impact Assessment (Caltrans, 2008b).

#### 3.10.1 Existing Conditions

##### 3.10.1.1 Existing Land Uses

**City of Baldwin Park.** From Puente Avenue to approximately Ardilla Avenue, commercial (i.e., Baldwin Park Town Center) uses dominate this part of the study area north of I-10. Single- and multi-family residential, commercial (i.e., motel, auto dealership), institutional (i.e., Golden State Care Center), and light industrial uses are located in the study area south of I-10.

**City of West Covina.** North of I-10 between Ardilla and Pacific avenues, there are single- and multi-family residential, institutional (i.e., preschool and vocational training) and commercial (i.e., offices) uses. Commercial (i.e., office, motel, and retail) uses dominate from Pacific Avenue to Sunset Avenue. Institutional (i.e., Vincent Children’s Center and Options Head Start School), single- and multi-family residential, and commercial (i.e., Channel Communications and Piano City) uses extend from Sunset to Vincent avenues. From Vincent to Azusa avenues, there are commercial and residential (i.e., single- and multi-family) uses. A mix of uses, including commercial (i.e., Hollenbeck Office Center, restaurant), single- and multi-family residential, and vacant land extend from Azusa to Hollenbeck avenues. From Hollenbeck to Citrus avenues, commercial, institutional, and multi-family residential uses are the principle land uses. The Westfield Eastland Shopping Center, which includes retail and commercial uses, extends from Citrus Street to Barranca Avenue. From Barranca Avenue to Fairway Lane, commercial (i.e., restaurant, hotel, Grand Creek Plaza) and office uses (i.e., Foothill Transit) are the dominant uses. There are existing single-family residential uses from Fairway Lane to approximately Forest Hills Drive.

South of I-10 between approximately Ardilla Avenue east to Orange Avenue, there are a mix of single- and multi-family residential, vacant land, institutional (i.e., Beverly Manor Convalescent Hospital and Pierce Brothers Mortuary), and commercial (i.e., City Gate Business Park) uses. From Orange to Sunset avenues, commercial (i.e., Kmart and Jo-Ann Fabric & Crafts) and institutional (i.e., Doctor’s Hospital of West Covina) uses exist. Commercial (i.e., retail and office) uses from Sunset to Glendora avenues include Westfield West Covina, The Lakes at West Covina, and Edwards Cinema West Covina 18. There are commercial (i.e., Sammelman Mortgage and Carrows Restaurant) and single-family residential uses between Glendora and Azusa avenues. From Azusa to Hollenbeck avenues, there are

commercial (i.e., auto dealerships) and residential uses. Residential and commercial (i.e., restaurant) uses are located between Hollenbeck and Citrus avenues. Commercial (i.e., office and retail shops) uses are located from Citrus to Grand avenues. A mix of residential, institutional (i.e., Temple Ami Shalom and West Covina Hills Seventh-Day Adventist Church and School), and vacant land are located between Grand Avenue and Horseshoe Circle.

**City of Covina.** North of I-10, from approximately Forest Hills Drive to Park View Drive, commercial uses dominate the area, including business parks and the Radisson Suites Hotel. Jalapa Park is located immediately north of the Holt Avenue off-ramp. Land uses south of I-10 are located within unincorporated Los Angeles County.

**City of San Dimas.** Single-family residences constitute the dominant land use north of I-10 from Via Verde Street to the SR 57/SR 71 interchange. Frank G. Bonelli Regional Park is located to the northeast of the SR 57/SR 71 interchange within the project study area. There are no land uses south of I-10 under the jurisdiction of the City of San Dimas.

**City of Walnut.** South of I-10, between Forest Lawn Memorial Park and Cal Poly, Pomona, the northern city limits of Walnut extend to the vicinity of I-10 where the hilly land is used as open space.

**City of Pomona.** Public facilities and business park space dominate within the proposed project area. Cal Poly, Pomona, is located on the south side of I-10, and office park space occupies the space southeast of the SR 57/SR 71 interchange.

**Los Angeles County.** Extending from Holt Avenue to Via Verde Street, unincorporated land on both sides of I-10 are predominantly developed with large-lot single-family residential uses. There is also an existing park-and-ride facility on the north side of I-10 at Via Verde Street. South of I-10, land under Los Angeles County jurisdiction consists of institutional (i.e., Forest Lawn Memorial Park) and single-family residential uses.

Table 3.10-1 provides a summary of land uses in the immediate vicinity of the proposed project. Figure 3.10-1 indicates current land use in the study area.

**TABLE 3.10-1 STUDY AREA LAND USE**

<b>Location</b>	<b>Land Use Description</b>
From Puente Avenue to Citrus Avenue (north of I-10)	Consists mostly of single-family residential with dense pockets of commercial at the west and east end of this area.
From Puente Avenue to Citrus Avenue (south of I-10)	Consists mostly of single-family residential with one dense pocket of public facilities surrounded by an even larger pocket of commercial.
From Citrus Avenue to SR 57/ SR 71 (north of I-10)	Less dense than the western portion of the project area, this area consists mostly of single-family residential, the other half of the commercial pocket on the west side, and the only two parks in the project study area.
From Citrus Avenue to SR 57/ SR 71 (south of I-10)	Less dense than the western portion of the project area, much of this area consists of Forest Lawn Memorial Park, with single-family residential on the west side and commercial on the east side.

Source: Parsons, 2008.

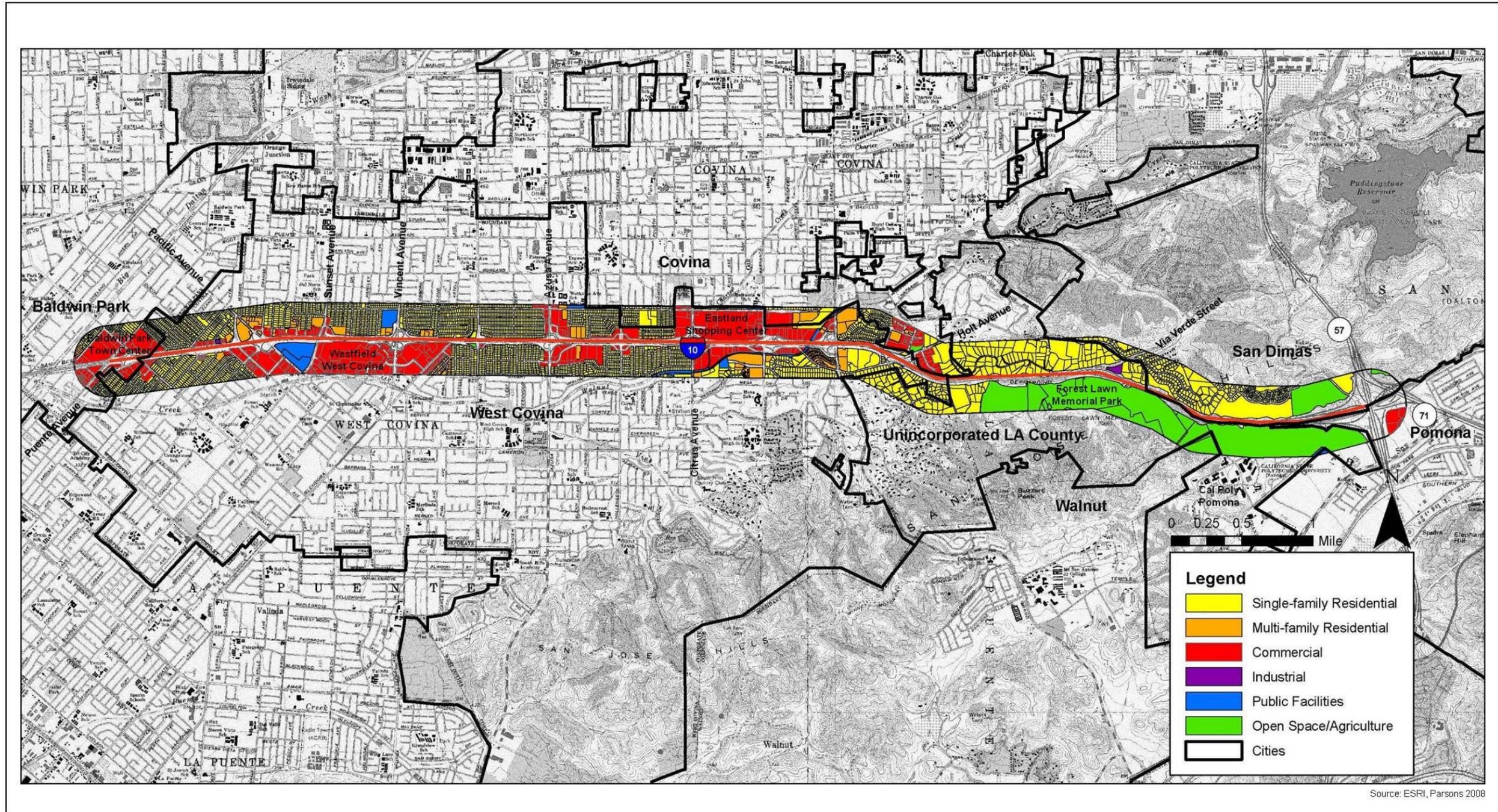


Figure 3.10-1 Land Use Map



This page intentionally left blank.

### **3.10.2 Regulatory Requirements**

#### **3.10.2.1 Adopted Plans**

Adopted plans that guide development within the study area include the General Plans of the cities of Baldwin Park, West Covina, Covina, San Dimas, Walnut, and Pomona, as well as Los Angeles County.

The General Plan is the basic planning document for a city or county that provides the blueprint for development of the community. It must address the following seven State-prescribed elements: land use, circulation, housing, conservation, open space, noise, and safety. The Land Use Element (LUE) of a General Plan identifies the proposed distribution and intensity of housing, business, industry, open space, natural resources, public facilities, waste disposal, and other categories of public and private land uses.

#### ***City of Baldwin Park General Plan***

The City's General Plan, adopted in 2002, consists of nine specific elements and an Implementation Program. The nine specific elements are land use, urban design, economic development, circulation, housing, open space and conservation, public safety, noise, and air quality (City of Baldwin Park, 2002).

Established policies and implementation measures relevant to the proposed project include provisions for development or redevelopment of mixed-use commercial centers near the freeway, and encouraging development of low-scale, low-intensity commercial and industrial uses that are oriented primarily toward serving the local resident and business populations. The Plan also includes circulation provisions encouraging direct coordination with Caltrans to improve I-10.

*Redevelopment Project Areas.* Three redevelopment project areas lie within the project study area: Delta Redevelopment Project, Sierra Vista Redevelopment Project, and Puente/Merced Amended Redevelopment Project. Baldwin Park does not have any city-initiated redevelopment projects. Currently, these redevelopment areas do not have any pending projects within the project study area.

#### ***City of West Covina General Plan***

Last updated in 1985, the City's General Plan includes goals, policies, implementation measures, and maps for land use decisions made in the city. The General Plan characterizes the city as largely residential and focuses nonresidential uses in two major commercial cores: the CBD and Eastland.

The principle General Plan land use designations in the vicinity of I-10 are residential and commercial uses. Areas along and immediately north of I-10 in the east part of the study area are principally service and neighborhood commercial uses. Proceeding east from the city's boundary with Baldwin Park along West Garvey Avenue North and south to North Sunset

Avenue, the General Plan land use designations include medium-high residential, public facilities, service and neighborhood commercial, and regional commercial. Continuing east from North Sunset Avenue along West Garvey Avenue North to Azusa Avenue, the designated land uses are regional commercial, service, and neighborhood commercial, and low-medium, medium, and medium-high residential. From Azusa Avenue east to Citrus Avenue, the land use designations are service and neighborhood commercial and low-medium, medium, and medium-high residential. Continuing east to the city's boundary, land use designations include regional commercial; service and neighborhood commercial; planned development; and very-low, low-medium, and suburban residential (City of West Covina, 1985).

General Plan policies and implementation measures relevant to the proposed project emphasize preservation of the city's existing residential character, provision of a range of nonresidential uses to ensure a strong economic base, providing a safe and efficient means of circulation, and maintaining an aesthetically pleasant environment for those who live, work, play, and visit West Covina. The Circulation Element of the General Plan is unavailable for online review for West Covina.

*Redevelopment Project Areas.* West Covina has two redevelopment project areas that are spread throughout the city: West Covina Redevelopment Project Area and City Wide Redevelopment Project Area. Much of the redevelopment project area boundaries run along the I-10 corridor, with the West Covina Redevelopment Project Area boundary encompassing most of the redevelopment volume in the city. Currently, one redevelopment project is underway within the project study area: Westfield West Covina Mall expansion, 112 Plaza Drive (Phase III).

### **City of Covina General Plan**

The City's General Plan LUE, last updated in 1989, indicates that land uses adjacent to I-10 include general commercial and low-density residential. According to the LUE map, general commercial uses are designated for areas north of I-10 from approximately Forest Hills Drive east along East Garvey Avenue North to Holt Avenue. In the city's sphere of influence, low-density residential is designated for areas immediately adjacent to the city boundary, north of I-10 and generally east of Holt Avenue, in unincorporated Los Angeles County (City of Covina, 1989).

General Plan policies and implementation measures relevant to the proposed project emphasize accommodation of moderate residential, commercial, and industrial development, and an attractive community that maintains a good image and small-town atmosphere, economic and social vitality, and provision of sufficient public facilities and services. The Circulation Element of the General Plan is unavailable for online review for Covina.

*Redevelopment Project Areas.* Covina has one redevelopment project area that lies within the proposed project area: Project Area One. A portion of Project Area One abuts the northern

edge of I-10 near Holt Avenue. There are no major redevelopment projects located within the project study area in the city.

### ***City of San Dimas General Plan***

The City's General Plan LUE, last updated in 1991, designates land in the I-10 project study area as single-family, very low density, and public/semi-public. The LUE identifies Via Verde Street/I-10 as a City Entryway or Gateway and recommends that this area be developed with unique landscaping and a city entry sign in medians or public property to create a sense of identity (City of San Dimas, 1991).

General Plan policies and implementation measures relevant to the proposed project emphasize maintenance of a rural, small town, low-density atmosphere; provision of adequate and essential services, utilities, and recreational and open space facilities; planning an urban form that efficiently utilizes urban infrastructure and services; well-planned commercial centers and nodes; and a unified and high-quality visual image for the city. The Plan also includes a circulation provision with the objective to increase vehicle occupancy rates.

*Redevelopment Project Areas.* The two redevelopment project areas in San Dimas are located outside the project study area.

### ***City of Walnut General Plan***

The City's General Plan, adopted in 1978, consists of seven specific elements. The seven specific elements are land use, circulation, housing, environmental resources management (i.e., conservation, open space, recreation, and scenic highways), public safety, noise, and sewer. Walnut is primarily a residential community. The fundamental goal of the General Plan is to preserve its rural character (City of Walnut, 1978).

Established General Plan policy and implementation measures relevant to the proposed project include minimizing alteration of the natural terrain and encouraging maintenance of all land and improvements in a safe, healthful, and attractive condition. There are no circulation policies relevant to the proposed project.

*Redevelopment Project Areas.* The only area of the city located near I-10 is within the Walnut Improvement Agency. The City of Walnut has no plans for development in this area.

### ***California State Polytechnic University, Pomona Campus Master Plan***

The Campus Master Plan, issued in July 2000, aims to create a physical environment that fosters the university's educational mission of advancing learning and knowledge for students. The Master Plan acknowledges the presence of I-10 in its discussion of campus boundaries, vehicular systems, viewsheds, and access points. A new parking structure is planned in the Campus Master Plan at the entrance to the University near I-10. Strategic policy goals of the Cal Poly, Pomona Campus Master Plan that are relevant to the proposed

project include enhancing effective acquisition, planning and management of resources, and increasing community involvement.

### ***City of Pomona General Plan***

The City's General Plan was adopted in 1976; a 2007 Draft update is available on the City of Pomona Web site. Although minor amendments have been made to the General Plan since its adoption, the 1976 version continues to serve as the fundamental land use planning document for the City. The City of Pomona General Plan consists of six specific elements and the Plan for Land Use. The six specific elements are environmental resources, community design, residential, economic development, circulation-transportation, and human resources. The LUE of the City's General Plan focuses primarily on the amount and location of new development.

There are two plan areas in Pomona particularly relevant to this project: California State Polytechnic, Pomona to the south of I-10 and the Kellogg/University Corporate Center Specific Plan that abuts the SR 57/SR 71 interchange. Land use designations in that area are primarily public facilities, with a small portion near the interchange that permits nonresidential development (City of Pomona, 2007).

The following established policy and implementation measure in the City's General Plan is relevant to the proposed project: protect the livability of neighborhoods to prevent the intrusion of incompatible land hazards such as noise, noxious fumes, and through traffic into residential areas. The Plan also includes circulation provisions to reduce single-occupancy vehicle travel and manage congestion on nearby freeways.

*Kellogg/University Corporate Center Specific Plan.* The Kellogg/University Corporate Center Specific Plan is a 52-acre business park located adjacent to the SR 57/SR 71 interchange. The specific plan area is partially developed with 1.5 million allowable square feet of research and development, office, hotel, retail, and other supporting uses. DeVry University and other office uses are currently located on the site.

*Redevelopment Project Areas.* The area immediately adjacent to the SR 57/SR 71 interchange is located within the West Holt Redevelopment Project Area. There are no planned or recently completed redevelopment projects located within the project study area in Pomona.

### ***County of Los Angeles General Plan***

The County of Los Angeles General Plan, adopted in 1980, serves as a long-range planning document to provide the framework for future development and resource conservation. The Los Angeles County Department of Regional Planning has made a copy of the County's Draft 2035 General Plan (April 2011) available online; however, the 1980 version is the only adopted plan. The General Plan contains the following seven elements: land use, circulation, conservation and open space, noise, safety, public services and facilities, and economic

development. Each element includes broad policies and goals to guide development and local decision making. The elements also include implementation strategies for achieving stated policies and goals.

The following policy in the County's Draft 2035 General Plan is relevant to the proposed project: promote and encourage transit-oriented development (TOD) along major transportation and transit corridors (Los Angeles County, 2011); however, because that Plan is not yet adopted, policies from the 1980 General Plan are relevant at this time. The 1980 General Plan includes a land use provision relevant to the proposed project that encourages clustering of highway-oriented commercial facilities. The Plan also includes circulation provisions to improve traffic flow (Los Angeles County, 1980).

*Redevelopment Project Areas.* There are no designated redevelopment project areas in unincorporated Los Angeles County within the I-10 project study area.

### **3.10.2.2 Relocation Assistance**

As required by existing federal and state laws, Caltrans will comply with the provisions of the Uniform Relocation and Assistance Real Property Acquisition Policies Act of 1970, as amended (California Government Code, Chapter 16, Section 7260, *et. seq.*). If there is any displacement or relocation required, displaced persons would be entitled to reimbursement of certain actual, reasonable moving expenses pursuant to 25 California Code of Regulations (CCR) §6090 and compensation for replacement housing payments as provided by 25 CCR §§6102 and 6104. All benefits and services would be provided equitably to all affected parties without regard to race, color, religion, age, national origins, and disability as specified under Title VI of the Civil Rights Act of 1964.

### **3.10.3 Significance Criteria**

Criteria for determining the significance of land use impacts are based on the CEQA Guidelines, Appendix G – Environmental Checklist. Land use impacts would be considered significant if they were to:

**LU-1:** Physically divide an established community.

**LU-2:** Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project, adopted for the purpose of avoiding or mitigating an environmental effect.

**LU-3:** Conflict with any applicable habitat conservation plan or natural community conservation plan.

**LU-4:** Displace substantial numbers of existing housing and residents, necessitating construction of replacement housing elsewhere.

**LU-5:** Displace substantial numbers of nonresidential properties, necessitating replacement of nonresidential properties.

### **3.10.4 Impacts**

#### **3.10.4.1 No Project Alternative**

The No Project Alternative would not include construction or operation of HOV lanes within the subject corridor; land use would continue to be directed by existing comprehensive planning guidelines. The No Project Alternative would not impact land use within the study area.

#### **3.10.4.2 Proposed Project Alternative**

**Impact LU-1: The proposed project would not physically divide an established community.**

I-10 has been in operation since the 1950s. The communities have grown around the existing freeway. The proposed project would result in mostly minor property acquisitions at several locations; however, these acquisitions should have no effect with regard to dividing an established community. Neither would the proposed project create a barrier to interaction between parts of the community because the HOV improvements would be made along an existing corridor.

Once in operation, the proposed project is anticipated to improve traffic flow and ease congestion along I-10, which would in turn eliminate the need for those traveling along the freeway to use short cuts through the neighboring communities. As a result, the proposed project would create beneficial effects, including easing traffic flow on surface streets adjacent to the freeway.

**Impact LU-2: The proposed project would not conflict with applicable land use plans, policies, or regulations of an agency with jurisdiction over the project, adopted for the purpose of avoiding or mitigating an environmental effect.**

The proposed project is consistent with all state, regional, and local plans and programs; it is not anticipated to require any zoning changes. The proposed project would be consistent with the goals and policies outlined in the General Plans for the cities of Baldwin Park, West Covina, Covina, San Dimas, Walnut, and Pomona, as well as for the County of Los Angeles.

No temporary impacts on land use would occur because no change in land use or zoning along the project corridor would be required, nor would there be unacceptable intrusive impacts on adjacent land uses during the construction period.

**Impact LU-3: The proposed project would not conflict with any applicable habitat conservation plan or natural community conservation plan.**

Based on review of the aforementioned General Plans, as well as USFWS and CDFG maps and plans, there are no existing habitat conservation plans (HCPs), natural community conservation plans, or other approved local, regional or state habitat plans (i.e., HCPs) applicable to this area.

**Impact LU-4: The proposed project would neither displace existing residents nor necessitate construction of replacement housing elsewhere.**

No full residential acquisitions are anticipated for the proposed project. In this regard, relocation of owner- and rental-occupied residential properties is not anticipated.

Temporary impacts would include temporary construction easements (TCEs) on nonresidential and residential properties along the nine-mile-long project ROW. Construction activities may briefly impede access to residential properties due to the implementation of street or driveway closures or detours. Access to the neighborhoods and businesses may be detoured for short periods of time during construction; however, access would continue to be available for residents, businesses, and emergency response at all times. Construction would be conducted in phases to allow maximum room for traffic movement and detours. In addition, a TMP would be developed for all work performed within the public ROWs. The purpose of the TMP would be to provide safe and efficient movement of motorists, pedestrians, bicyclists, construction equipment, workers, and emergency and law enforcement personnel and equipment. The TMP would be consistent with the California Manual on Uniform Traffic Control Devices (MUTCD) (September 2006) and local agency guidelines. A separate TMP component would be prepared for each different construction phase or operation.

**Impact LU-5: The proposed project would displace nonresidential properties, necessitating replacement nonresidential properties**

Figure 3.10-2 and Table 3.10-2 identify the full nonresidential property acquisitions that may be required for the proposed project. Three business displacements, all located within West Covina near the Vincent Avenue on-/off-ramp, are currently proposed to be required. The first two businesses listed in Table 3.10-2, a retail phone store and a restaurant, are located on the same parcel. The third displacement is located adjacent to the first two. These acquisitions are anticipated due to reconfiguration of the on-/off-ramp. According to the Relocation Impact Statement (2010) prepared for the proposed project, sufficient replacement properties are available.



Figure 3.10-2 Potential Full Acquisitions



Construction activities may also temporarily impair access to businesses due to implementation of road closures or detours, thus negatively affecting businesses. Displacement of and difficulty accessing businesses during construction could affect employment and economic activity within the project vicinity; however, these impacts would be temporary in nature and the affected businesses would be fairly compensated for relocation assistance and associated payments.

**TABLE 3.10-2 POTENTIAL PROPERTY ACQUISITIONS**

Local Jurisdiction	Business Name	Address	APN	Square Feet	Type	Current Use
West Covina	AT&T Retail Store	100 S. California Avenue #A	8474-007-030	8,962	Full	Retail
	Bob's Big Boy (closed)	100 S. California Avenue #B			Full	Restaurant (vacant)
	California Pizza Kitchen	110 S. California Avenue	8474-007-031	6,006	Full	Restaurant

Source: Caltrans, 2011.

### 3.10.5 Mitigation Measures

No mitigation measures are required for impacts LU-1 through LU-5. The following measures would minimize impacts associated with relocations:

- A Real Estate Acquisition Management Plan (RAMP) shall be developed adhering to the requirements pertaining to land acquisition for projects funded by FTA as prescribed in Volume 49 CFR Part 24, Uniform Relocation Assistance and Real Property Acquisition Policies Act for Federal and Federally Assisted Programs, and the California Relocation Assistance Act, 1970. All acquisitions shall follow state and local guidelines for compliance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act.

### 3.10.6 Level of Significance after Mitigation

No mitigation measures are required for the proposed project.

This page intentionally left blank.

### 3.11 Agriculture

This section assesses potential agricultural resources impacts associated with the proposed project. The analysis includes a discussion of existing agricultural land uses within 0.25-mile of the project corridor (defined for analysis purposes as the 'study area'). Information for this section was obtained from the following reports prepared for the I-10 HOV Lane Project: Socioeconomics, Land Use, Utilities and Public Services Technical Report (Caltrans, 2002c) and Community Impact Assessment (Caltrans, 2008b).

#### 3.11.1 Existing Conditions

The only agricultural land within the vicinity of the study area is adjacent to I-10 within the Cal Poly Pomona campus. There are large fields within the study area, located generally southwest of the eastbound I-10 transition ramps to southbound SR 57. The field closest to the interchange and south of East Campus Drive is proposed for future development in the most recent (2011) campus master plan revision. The campus was not surveyed for the most recent 2008 California Department of Conservation Important Farmlands Map for Los Angeles County. Hence, agricultural properties on campus are not designated as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (DOC, 2010). As a public entity, the campus does not include any land under a Williamson Act contract. Lands for academic, instructional, and research agricultural programs remain on campus and include land dedicated to crop production, animal husbandry, and horse pastures. The campus does not include forestlands. (Cal Poly Pomona, 2011)

#### 3.11.2 Regulatory Requirements

CEQA requires the review of projects that would convert Williamson Act contract land to nonagricultural uses. The main purposes of the Williamson Act are to preserve agricultural land and to encourage open space preservation and efficient urban growth. The Williamson Act provides incentives to landowners through reduced property taxes to deter the early conversion of agricultural and open space lands to other uses.

#### 3.11.3 Significance Criteria

Criteria for determining the significance of impacts related to agriculture are based on the CEQA Guidelines, Appendix G – Environmental Checklist. Impacts from the proposed project would be considered significant under the following circumstances:

**AGR-1:** Convert prime farmland, unique farmland, farmland of statewide importance, as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to nonagricultural use.

**AGR-2:** Conflict with existing zoning for agricultural use or a Williamson Act contract.

**AGR-3:** Involve other changes in the existing environment that, due to their location or nature, could result in conversion of farmland to nonagricultural use.

### 3.11.4 Impacts

#### 3.11.4.1 No Project Alternative

The No Project Alternative would not include construction of HOV lanes. Like the Proposed Project Alternative, the No Project Alternative would not impact agricultural resources within the study area.

#### 3.11.4.2 Proposed Project Alternative

**Impact AGR-1: The proposed project would not result in conversion of prime farmland, unique farmland, or farmland of statewide importance to nonagricultural use.**

The agricultural lands on the Cal Poly Pomona campus are set back from the freeway and would not be directly affected by the proposed project. No farmland or farms would be acquired for the proposed project. As mentioned above, there are no farmlands within the study area that are designated as prime, unique, or of statewide importance. Given these considerations, the proposed project would not result in any impacts related to acquisition of prime farmland, unique farmland, or farmland of statewide importance.

**Impact AGR-2: The proposed project would not conflict with existing zoning for agricultural use or a Williamson Act contract.**

Unincorporated land south of I-10 from approximately the intersection of East Garvey Avenue South and Palomino Drive (the western boundary of Forest Lawn Memorial Park Cemetery) to the SR 57/SR 71 interchange is zoned for agricultural use. An approximately 0.6-mile stretch of unincorporated land on the north side of I-10 east of the city of Covina boundary is also zoned for agricultural use (A-1-40000), but it is being used for large-lot residential purposes. Williamson Act contracts are not attached to these land parcels. Soundwalls are recommended along some of these areas. Most of the soundwalls would be within Caltrans ROW; however, some land may be acquired to accommodate the soundwalls. Because the land in question is not in active agricultural production, but is zoned for such use, a less than significant impact is judged to exist.

**Impact AGR-3: The proposed project would not involve other changes in the existing environment that, due to their location or nature, could result in conversion of farmland to nonagricultural use.**

No land used for farming or forestry purposes would be affected by the proposed project.

#### 3.11.5 Mitigation Measures

**Impacts AGR-1, AGR-2, and AGR-3:** There would be no impacts to agriculture with proposed project construction and operation; therefore, no mitigation measures are required.

#### 3.11.6 Level of Significance after Mitigation

No mitigation measures are required for the proposed action.

### 3.12 Public Services and Utilities

This section assesses potential public services and utilities impacts associated with the proposed project. The below analysis includes a discussion of existing public services and utilities in the proposed project study area. The study area is defined as 0.25-mile from the project corridor. Public services include police and fire protection/emergency services, schools, and solid waste management. Utilities include domestic/potable water, sewer service, electricity, natural gas, and cable television. Health-care facilities are also discussed in this section. Information for this section was obtained from the *Interstate 10 High Occupancy Vehicle Lane from Puente Avenue to the State Route 57/State Route 71/Interstate 210 Interchange Community Impact Assessment* (Caltrans, 2008b).

#### 3.12.1 Existing Conditions

##### 3.12.1.1 Police and Fire Protection

**City of Baldwin Park.** Law enforcement in Baldwin Park is provided by the City of Baldwin Park Police Department. The Department Headquarters is located at 14403 Pacific Avenue. The CHP, Baldwin Park Station at 14039 Francisquito Avenue, is responsible for law enforcement on I-10.

Fire protection in Baldwin Park is provided by the Los Angeles County Fire Department. Station 29, located at 14334 Los Angeles Street, is responsible for responding to calls north of I-10 and on I-10. The area south of I-10 in Baldwin Park is within the service area of Station 87, located at 140 South Second Avenue in the City of Industry.

Emergency services (i.e., ambulance and paramedics) in the study area along I-10 are offered by many different service providers.

**City of West Covina.** Law enforcement in West Covina is provided by the City of West Covina Police Department. The Department Headquarters is located at 1444 West Garvey Avenue South. The CHP Baldwin Park Station is responsible for law enforcement on I-10 in West Covina.

Fire protection is provided by the West Covina Fire Department. The following stations respond to incidents on I-10 and in the freeway vicinity: Station 1 (819 South Sunset Avenue), Station 2 (2441 East Cortez Avenue), and Station 3 (1433 West Puente Avenue).

Emergency services (i.e., ambulance and paramedics) in the study area along I-10 are provided by the West Covina Fire Department.

**City of Covina.** Law enforcement in Covina is provided by the City of Covina Police Department. The police department facility nearest to the project study area is located at 444 North Citrus Avenue. The CHP Baldwin Park Station is responsible for law enforcement on I-10 in Covina.

Fire protection in Covina is provided by the County of Los Angeles Fire Department. Stations 152 (807 West Cypress Street), 153 (1577 East Cypress Street), and 154 (401 North Second Avenue) serve the I-10 project study area.

Emergency medical services (i.e., ambulance and paramedics) are provided by private providers.

**City of San Dimas.** Law enforcement in San Dimas is provided by the Los Angeles County Sheriff's Department at 270 South Walnut Avenue. The CHP Baldwin Park Station is responsible for law enforcement on I-10 in San Dimas.

Fire protection in San Dimas is provided by the Los Angeles County Fire Department. Stations 64 (164 South Walnut Avenue) and 141 (1124 West Puente Street) are responsible for responding to calls in the city, including the area in the vicinity of and along I-10.

Emergency services (i.e., ambulance and paramedics) are provided by various public and private providers.

**City of Walnut.** Law enforcement in Walnut is provided by the Los Angeles County Sheriff's Department at 21695 East Valley Boulevard.

Fire protection in Walnut is provided by the Los Angeles County Fire Department. Stations 61 (20011 La Puente Road) and 146 (20604 Loyaltan Drive) are responsible for responding to calls in the city.

Emergency services (i.e., ambulance and paramedics) are provided by various providers.

**City of Pomona.** Law enforcement in Pomona is provided by the City of Pomona Police Department, located at 490 West Mission Boulevard.

Fire protection in Pomona is provided by the Los Angeles County Fire Department. The closest stations to the project area are Stations 184 (1980 West Orange Grove) and 187 (3325 Temple Avenue).

Emergency medical services (i.e., ambulance and paramedics) are provided by private providers.

**Los Angeles County.** Law enforcement in unincorporated Los Angeles County in the vicinity of I-10 is provided by the Walnut Station of the Los Angeles County Sheriff's Department, located at 21695 East Valley Boulevard. The CHP Baldwin Park Station is responsible for law enforcement on I-10.

Fire protection in unincorporated Los Angeles County is provided by the Los Angeles County Fire Department. Station 185 (925 East Lexington Avenue) is responsible for responding to calls.

Emergency services (i.e., ambulance and paramedics) within the study area are provided by the Los Angeles County Fire Department and private providers.

### **3.12.1.2 Schools**

**City of Baldwin Park.** The Baldwin Park Unified School District (BPUSD) operates three elementary schools, one junior high school, and one senior high school; however, the proposed project study area is not a part of the BPUSD attendance area.

**City of West Covina.** The Covina-Valley Unified School District (CVUSD) provides school facilities in West Covina in the project study area. The CVUSD schools located in the project study area are Workman Avenue Elementary (1941 East Workman Avenue) and Vincent Children's Center (1024 West Workman Avenue). Vincent Children's Center provides educational services for children with special needs up until 4 years of age. The center also provides after-school care for those with special needs in the 5<sup>th</sup> through 8<sup>th</sup> grades.

The following daycare, preschool, and private school facilities are located in the project study area:

- Discovery Montessori Preschool – 2451 East Garvey Avenue North (preschool)
- Learning Garden School – 2141 West Garvey Avenue North (preschool)
- Sacred Heart School – 360 West Workman Avenue (Kindergarten-8<sup>th</sup> Grade)
- Atid Hebrew Academy – 3508 East Temple Way (Kindergarten-6<sup>th</sup> Grade)
- Christ Lutheran School – 311 South Citrus Street (Preschool-8<sup>th</sup> Grade)
- West Covina Education Center – 2009 West Garvey Avenue North (daycare)
- Vincent Children's Center – 1024 West Workman Avenue (preschool).

In addition, North-West College and ITT Technical Institute offer post-secondary education within the project study area. North-West College (2121 West Garvey Avenue North) provides training in the healthcare and business fields, and ITT Technical Institute (1530 West Cameron Avenue) provides technical career training.

**Cities of Covina, San Dimas, and Walnut.** There are no school facilities located in the project study area of these jurisdictions.

**City of Pomona.** DeVry University (901 Corporate Center Drive) and Cal Poly Pomona (3801 West Temple Avenue), the latter a part of California's State University system, are university facilities located in the project study area.

**Los Angeles County.** CVUSD provides public education services in the unincorporated parts of the project study area. Please refer to the above discussion for a description of the CVUSD school facilities in the project study area.

### **3.12.1.3 Libraries**

The West Covina Library, located at 1601 West Covina Parkway, is the East Regional County Library for Los Angeles County. This library has adult and juvenile materials in multiple languages and is a selective government depository for federal and state environmental documents.

### **3.12.1.4 Courthouses**

The West Covina Courthouse is located at 1427 West Covina Parkway and is part of the Los Angeles County Superior Court system.

### **3.12.1.5 Hospitals and Health-Care Facilities**

Doctor's Hospital of West Covina, located at 725 South Orange Avenue in West Covina, is an acute-care facility that provides inpatient and outpatient services, including pharmacy and laboratory. The Kaiser Permanente West Covina Mental Health Clinic, located at 1511 North Garvey Avenue in West Covina, provides outpatient mental health services.

### **3.12.1.6 Cemeteries**

**City of Covina.** Forest Lawn Memorial Park located in the Covina Hills at 21300 Via Verde Drive provides memorial and burial services.

**Cities of Baldwin Park, West Covina, San Dimas, Walnut, and Pomona; Los Angeles County.** There are no cemeteries in the project study area within unincorporated Los Angeles County or the cities of Baldwin Park, West Covina, San Dimas, Walnut, or Pomona.

### **3.12.1.7 Places of Worship**

**City of West Covina.** Two religious centers are located in the project study area: Temple Ami Shalom, located at 3508 East Temple Way; and West Covina Hills Adventist Church, 3536 East Temple Way.

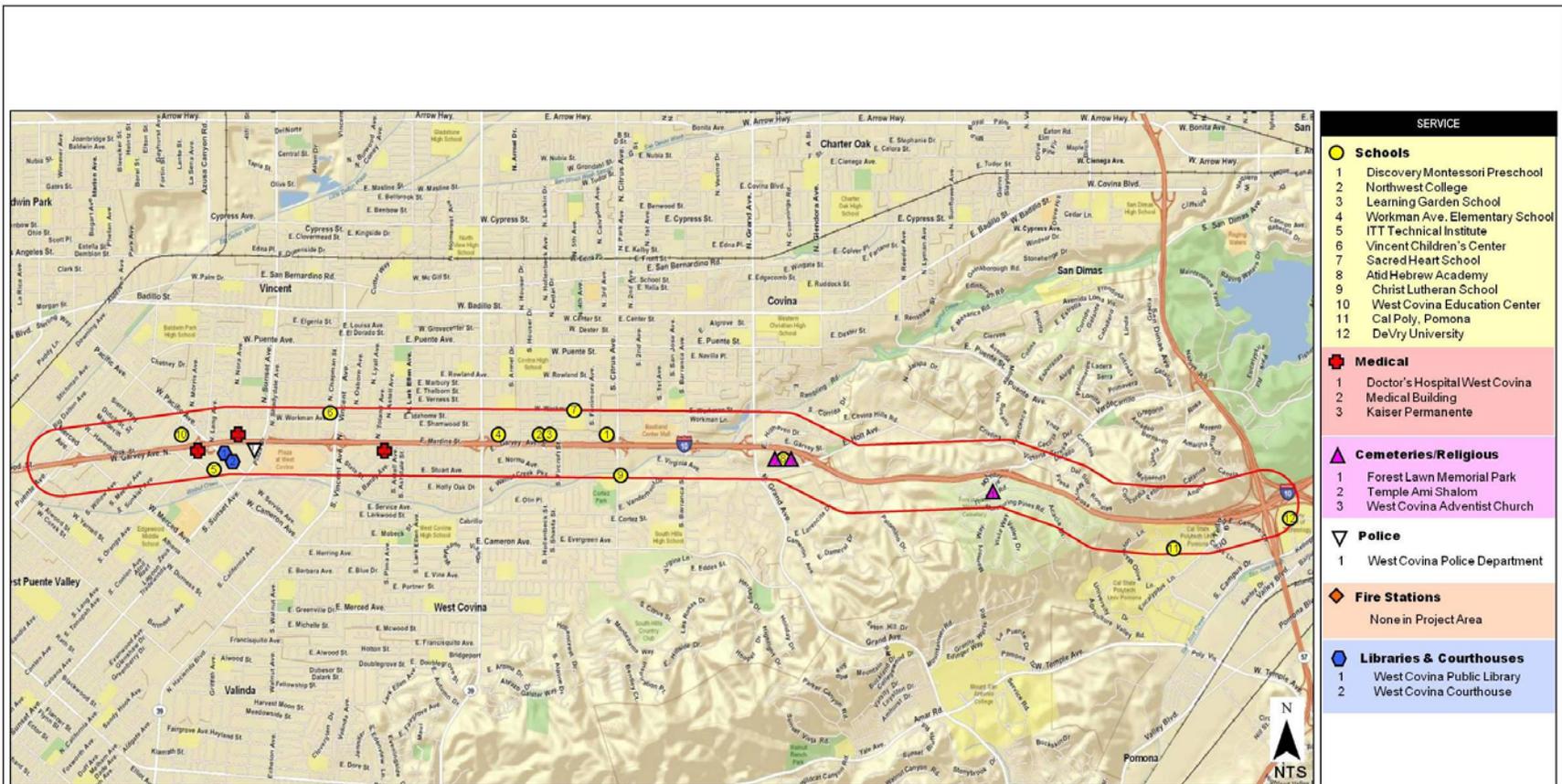
**Cities of Baldwin Park, Covina, San Dimas, Walnut, and Pomona; Los Angeles County.** There are no places of worship in the project study area within the jurisdiction of unincorporated Los Angeles County or the cities of Baldwin Park, Covina, San Dimas, Walnut, or Pomona.

The public and private services in the I-10 project study area are shown in Table 3.12-1 and in Figure 3.12-1.

**TABLE 3.12-1 PUBLIC AND PRIVATE SERVICES IN THE I-10 PROJECT STUDY AREA**

Name	Address
<b>Police Departments</b>	
West Covina Police Department	1444 West Garvey Avenue, West Covina
<b>Fire Departments</b>	
None in project area	
<b>Schools</b>	
Discovery Montessori Preschool	2451 East Garvey Avenue North, West Covina
Northwest College	2121 West Garvey Avenue North, West Covina
Learning Garden School	2141 West Garvey North, West Covina
Workman Avenue Elementary School	1941 East Workman Avenue, West Covina
ITT Technical Institute	1530 West Cameron Avenue, West Covina
Vincent Children's Center	1024 West Workman Avenue, West Covina
Sacred Heart School	360 West Workman Avenue, West Covina
Atid Hebrew Academy	3508 East Temple Way, West Covina
Christ Lutheran School	311 South Citrus Street, West Covina
West Covina Education Center	2009 W Garvey Avenue North, West Covina
California State Polytechnic, Pomona	3801 West Temple Avenue, Pomona
DeVry University	901 Corporate Center Drive, Pomona
<b>Libraries</b>	
West Covina Public Library	1601 West Covina Parkway, West Covina
<b>Courthouses</b>	
West Covina Courthouse	1427 West Covina Parkway, West Covina
<b>Medical Facilities</b>	
Doctor's Hospital West Covina	725 South Orange Avenue, West Covina
Medical Building	126 S. Glendora Avenue, West Covina
Kaiser Permanente	1511 N. Garvey Avenue West, West Covina
<b>Cemeteries/Religious Facilities</b>	
Forest Lawn Memorial Park	21300 Via Verde Drive, Covina
Temple Ami Shalom	3508 East Temple Way, West Covina
West Covina Hills Adventist Church	3536 East Temple Way, West Covina

Source: Parsons, 2008.



Source: USGS, Parsons 2008

Figure 3.12-1 Public Services



### 3.12.1.8 Solid Waste Management

Many landfills currently serve solid waste disposal needs for cities in the project study area. Based on data for 2006 from the California Integrated Waste Management Board (CIWMB), Baldwin Park disposed of 67,988 tons, West Covina disposed of 91,832 tons, Covina disposed of 54,062 tons, San Dimas disposed of 42,775 tons, Walnut disposed of 25,012 tons, and Pomona disposed of 4,735,245 tons of municipal solid waste (MSW). In 2006, 1,362,793 tons of MSW were disposed in unincorporated Los Angeles County; only a small percent of that total was generated in the unincorporated County areas within the project study area.

Landfills serving jurisdictions in the project study area are located in both Orange and Los Angeles counties and include, but are not limited to:

- Azusa Land Reclamation Company Landfill, located in Azusa, has a throughput capacity of 6,500 tons per day (tpd) and an estimated 66.7 million cubic yards (cy) of capacity. This landfill is scheduled to close in 2025.
- Frank R. Bowerman Sanitary Landfill, located in Irvine in central Orange County, has a throughput capacity of 8,500 tpd and an estimated 127 million cy of capacity. It is scheduled to close in 2022.
- Olinda Alpha Sanitary Landfill, located in Brea in north Orange County, has a throughput capacity of 8,000 tpd and an estimated 74.9 million cy of capacity. This landfill is scheduled to close in 2013.
- Puente Hills Landfill #6, located in Industry, has a throughput capacity of 13,200 tpd and an estimated 106.4 million cy of capacity. This landfill is scheduled to close in 2013.

Solid waste collection and disposal services in the project study area are provided by:

- Waste Management: unincorporated Los Angeles County and cities of Baldwin Park, San Dimas, and Pomona,
- Athens Services Company: West Covina, Covina, and Pomona
- Apex Waste System: Pomona
- Burrtec Waste Industries: Pomona
- Valley Vista Services: Pomona and Walnut
- Covina Disposal Company: Covina

### 3.12.1.9 Utilities

Public utilities located in the project study area include electricity, gas, domestic water, wastewater, and cable television. These utilities are listed in Table 3.12-2.

**TABLE 3.12-2 UTILITIES IN THE I-10 PROJECT STUDY AREA**

<b>Utility</b>	<b>Provider</b>
<b>City of Baldwin Park</b>	
Sewer	Los Angeles County
Domestic Water	Valley County Water District, San Gabriel Valley Company, and Valley View Mutual Water Company
Natural Gas	The Gas Company
Electricity	Southern California Edison (SCE)
Cable Television	Time Warner Cable Company
<b>City of West Covina</b>	
Sewer	City and Los Angeles County
Domestic Water	Five principle companies serve the city
Natural Gas	The Gas Company
Electricity	SCE
Cable Television	Charter Communications
<b>City of Covina</b>	
Sewer	City of West Covina (contract)
Domestic Water	Five principle companies serve the city
Natural Gas	The Gas Company
Electricity	SCE
Cable Television	Time Warner Cable Company
<b>City of San Dimas</b>	
Sewer	Southern California Water Company
Domestic Water	Southern California Water Company
Natural Gas	The Gas Company
Electricity	SCE
Cable Television	Time Warner Cable
<b>City of Walnut</b>	
Sewer	City and Los Angeles County
Domestic Water	Walnut Valley Water District, Southern California Water Company
Natural Gas	Southern California Gas Company
Electricity	SCE
Cable Television	Charter Communications
<b>City of Pomona</b>	
Sewer	City of Pomona
Domestic Water	City of Pomona
Natural Gas	The Gas Company
Electricity	SCE
Cable Television	Time Warner Cable
<b>Unincorporated Los Angeles County</b>	
Sewer	Los Angeles County
Domestic Water	Southern California Water Company and Suburban Water Company
Natural Gas	The Gas Company
Electricity	SCE
Cable Television	Time Warner Cable

Source: Parsons, 2008.

### 3.12.2 Regulatory Requirements

There are no regulatory requirements for the analysis of public services and utilities.

### 3.12.3 Significance Criteria

Criteria for determining the significance of impacts related to public services and utilities are based on the CEQA Guidelines, Appendix G – Environmental Checklist. Impacts from the proposed project would be considered significant under the following circumstances:

**PS-1:** Require the provision of new, or physically alter, governmental facilities to maintain acceptable service ratios, response times, or other performance objectives.

### 3.12.4 Impacts

#### 3.12.4.1 No Project Alternative

The No Project Alternative would not result in temporary impacts to utility facilities and emergency service providers associated with the I-10 HOV Lane Project. There would be no interruptions to utility service, street excavations, or utility relocations associated with the proposed project. Potential traffic effects to emergency service providers due to detours or closures would not occur; however, due to a projected increase in future traffic volumes without the project, and associated increased traffic congestion, traffic delays are expected to increase emergency response times under the No Project Alternative.

#### 3.12.4.2 Proposed Project Alternative

**Impact PS-1: The proposed project would not require the provision of new, or physically alter, governmental facilities in order to maintain acceptable service ratios, response times, or other performance objectives.**

**Fire, Law Enforcement, and Emergency Services.** The proposed project would involve construction that could contribute to short-term impacts to fire protection and emergency services due to delayed response times. This potential impact would be minimized through standard implementation of a TMP, which would contain access routes and detour plans to be implemented during construction, as required by the Department. The TMP should be reviewed and approved by the Los Angeles County Fire Department and any potentially affected fire or law enforcement agency; therefore, construction-related traffic impacts would create a less than significant impact to public and emergency services.

**Schools and Other Public Facilities.** The proposed project would not generate demand for schools or libraries; therefore, there would be no impact to schools. A TMP would be prepared to ensure that access to schools and other public facilities would be maintained during construction.

**Hospitals and Other Health-Care Facilities.** The proposed project would not increase demand for hospitals or other health-care facilities. See above discussion regarding emergency access issues and TMP implementation.

**Cemeteries and Places of Worship.** A TMP would be prepared to ensure that safe access to Forest Lawn Memorial Park would be maintained during construction of the proposed project. There would be no impact to cemeteries or places of worship.

**Solid Waste Disposal Services.** The proposed project would require demolition to accommodate the proposed improvements; therefore, considerable demolition and construction debris would be created. Recycling of material either onsite or offsite is required for Caltrans projects to minimize the solid waste disposal impacts; therefore, the proposed project would create less than significant impacts for solid waste disposal services.

**Utilities.** Utilities can be affected in three ways: (1) relocation, (2) removal, and (3) protection in place. During relocation and removal, as well as other construction activities, utility services could be damaged. Typical construction activities requiring relocation include widening of roadways and or replacement of existing structures. Areas requiring pavement widening would not require a utility location. Low-height retaining walls that would be constructed beneath overhead utilities would also not require utility relocation.

Construction of the I-10 HOV Lane Project would require the relocation of several public and private utilities within the project area. Most utility lines within the project area are located below ground and would not be in conflict with the improvements included in the proposed project. Nonetheless, several other utility lines would require relocation. In some cases, parallel facilities would be constructed around the project improvements, requiring short-term interruptions to service when service is switched to the new parallel facilities. Construction of structures directly above or near these utilities would likely affect these locations and require relocation.

Design, construction, and inspection of utilities requiring relocation to accommodate the project would be completed in accordance with Caltrans' requirements. Timely coordination with affected utilities would be undertaken to minimize disruption of service and to ensure construction takes place during periods of low demand and in accordance with applicable requirements.

Details about the handling of the various utility lines with anticipated conflicts would be solidified during final design stage. The aforementioned TMP would be devised and implemented to also minimize traffic impacts associated with utility relocations or replacements-in-kind within the project study area.

No permanent impacts related to public and private utilities and emergency services would result from the Proposed Project Alternative. All impacts to utilities and emergency services would be temporary and would be rectified once project construction is complete. After the HOV lanes are operational, the proposed project would result in improved access for emergency response services and would not impair implementation of or physically interfere with any adopted emergency response plan or emergency evacuation plan. The proposed project would result in less than significant impacts to utilities.

### **3.12.5 Mitigation Measures**

No mitigation measures are required; however, the following minimization measures are proposed:

Emergency service providers will be alerted in advance of any temporary road closures and delays so they have adequate time to make appropriate accommodations to ensure prompt emergency response times that fulfill their responsibilities and defined service objectives.

Utility providers will be made aware of project developments and be involved in planning of utility rerouting, identification of potential conflicts, and formulation of strategies to deal with unanticipated problems that may arise once construction has begun.

### **3.12.6 Level of Significance after Mitigation**

No mitigation measures are required for the proposed project.

This page intentionally left blank.

### **3.13 Parks and Recreational Facilities**

This section describes existing parks and recreational facilities in the study area of the proposed project. The study area is defined as 0.25-mile from the project alignment, as shown in Figure 3.13-1. Information for this section was obtained from the Community Impact Assessment (Caltrans, 2008b).

#### **3.13.1 Existing Conditions**

There are two parks in the study area, and these are located in the cities of Covina and San Dimas.

##### **3.13.1.1 City of Covina**

Jalapa Park, located approximately 50 feet from the existing I-10 ROW between East Garvey Street, Village Oaks Drive, and Holt Avenue, is a public park owned and operated by the City of Covina Parks and Recreation Department. This 2-acre park is an active recreational facility. Amenities provided at the park include a barbecue pit, picnic tables, and play equipment.

##### **3.13.1.2 City of San Dimas**

Frank G. Bonelli Regional Park is a 1,980-acre recreational park located northeast of the SR 57/SR 71 interchange, with most of the park located outside the project study area. It is a regional park, owned and operated by the County of Los Angeles, and provides fishing and boating, biking, hiking, and horse trails, among other amenities. It is also home to the 'Raging Waters' water park.

##### **3.13.1.3 Cities of Baldwin Park, West Covina, Pomona, and Los Angeles County**

There are no parks or recreational facilities in the project study area owned or operated by the cities of Baldwin Park, West Covina, Walnut, or Pomona, or by Los Angeles County.

#### **3.13.2 Regulatory Requirements**

Open Space elements of the general plans for each jurisdiction were reviewed for regulatory requirements within the project area.

##### **3.13.2.1 City of Baldwin Park**

Relevant policy from the City's Open Space Element includes:

- Policy 1.1: Preserve all existing park space, and provide improvements to enhance utilization.

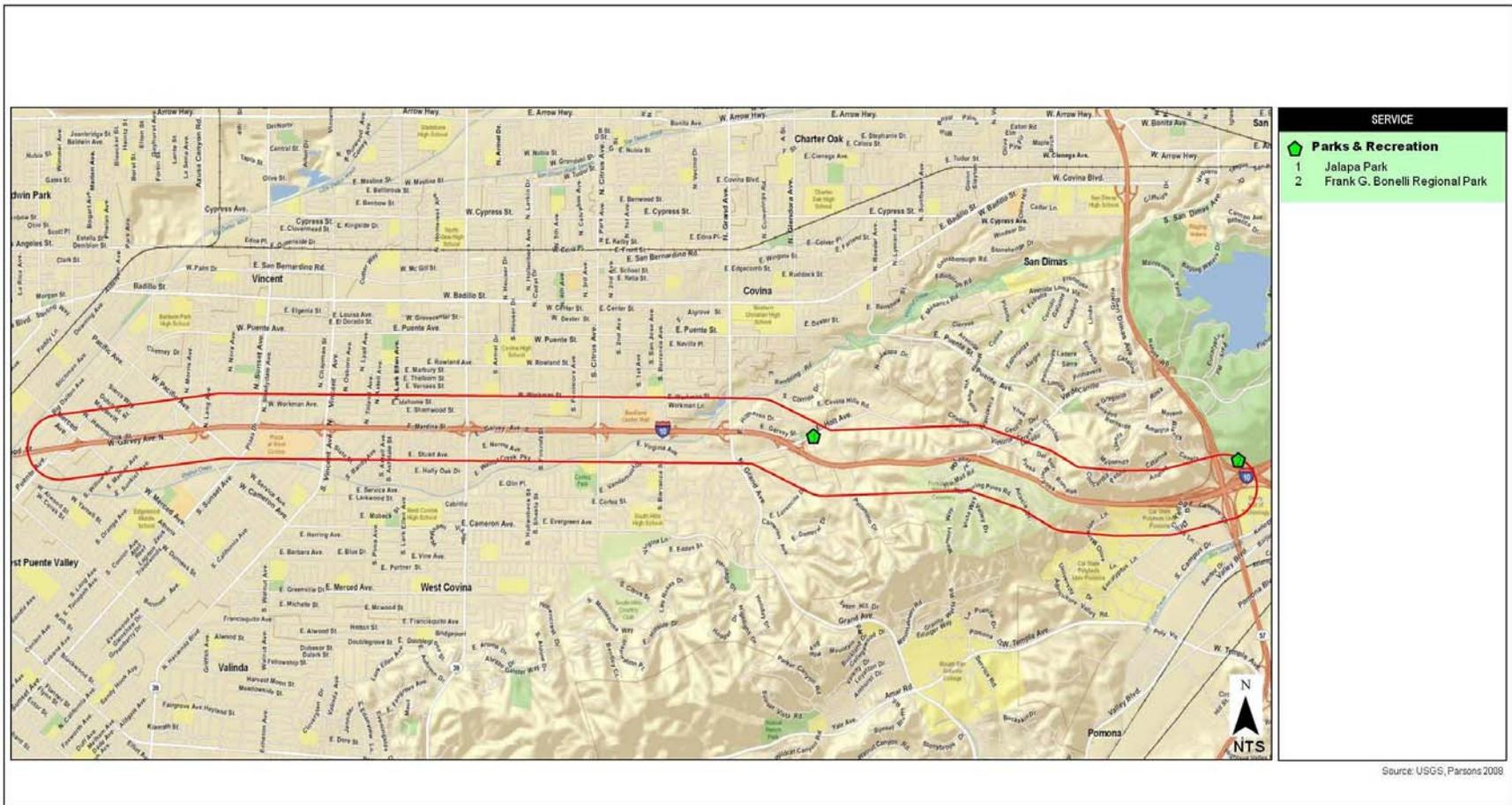


Figure 3.13-1 Parks and Recreational Facilities within the I-10 Study Area



### 3.13.2.2 City of San Dimas

Relevant goals from the City's Open Space Element include:

- Goals Statement OS-2: Maintain open space for the protection of public health and safety.
- Goals Statement OS-6: Provide access to public open space.

### 3.13.2.3 City of Walnut

Relevant policy from the City's Open Space Element includes:

- Policy 1: Promote the conservation and prudent utilization of natural resources, the reuse of resources, and the protection of environmental amenities.

### 3.13.2.4 City of Pomona

There are no open space policies relevant to the proposed project.

### 3.13.2.5 Los Angeles County

Relevant policies from the County's Open Space Element include:

- Policy 13: Encourage open-space easements and dedications as a means of meeting scenic, recreational, and conservation needs.
- Policy 34: Encourage the maintenance of landscaped areas and pollution-tolerant plants in urban areas. Integrate landscaping and open space into housing, commercial, and industrial developments, especially in urban revitalization areas. Use drought-resistant vegetation.
- Policy 35: Support preservation of heritage trees. Encourage tree planting programs to enhance the beauty of urban landscaping.

Open space elements were unavailable for online review for the cities of West Covina and Covina.

### 3.13.3 Significance Criteria

Criteria for determining the significance of impacts related to parks and recreation facilities are based on the CEQA Guidelines, Appendix G – Environmental Checklist. Impacts from the proposed project would be considered significant under the following circumstances:

**PAR-1:** Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated.

**PAR-2:** Require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment.

### 3.13.4 Impacts

#### 3.13.4.1 No Project Alternative

The No Project Alternative would not include construction of HOV lanes. Like the Proposed Project Alternative, the No Project Alternative would not impact parks and recreation facilities within the study area.

#### 3.13.4.2 Proposed Project Alternative

**Impact PAR-1: The proposed project would not increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated.**

Both parks are located outside of construction staging areas; therefore, no direct construction or permanent impacts would occur. At Jalapa Park in Covina, indirect temporary air quality and noise impacts are likely to occur during construction. Air quality and noise impacts during construction, and associated reduction measures, are discussed in Sections 3.3 and 3.4, respectively. Frank G. Bonelli Regional Park is separated from the construction site by a major interchange; therefore, it is unlikely to be adversely affected by temporary construction impacts. Given the above considerations, no impact is anticipated as a result of the proposed project.

**Impact PAR-2: The proposed project would not require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment.**

The proposed project would involve adding HOV lanes to an existing freeway, among other improvements. No parks or recreational facilities are part of the proposed project. Neither would the proposed project increase the demand, or create new demand, for park services. No impact is anticipated as a result of the proposed project.

In addition, of the general plans available for review online, no policies or goals are in conflict with the proposed project.

#### 3.13.5 Mitigation Measures

**Impacts PAR-1 and PAR-2:** No mitigation is required.

#### 3.13.6 Level of Significance after Mitigation

No mitigation measures are required for the proposed project.

**CHAPTER 4**  
**OTHER TOPICAL CEQA ISSUES**



## **4.0 Other Topical CEQA Issues**

### **4.1 Growth Inducement**

A project is considered growth inducing when it directly or indirectly fosters economic or population growth, or the construction of housing, either directly or indirectly, in the surrounding environment [CEQA Guidelines §15126.2(d)]. Projects that could remove obstacles to population growth, such as expansion of a wastewater treatment plant's capacity, are also considered in the context of growth inducement. Increases in population may also tax existing community service facilities, potentially requiring construction of new facilities that could cause significant environmental effects. In addition, growth inducement can be defined as growth that makes it feasible to increase the density of development in surrounding areas.

The area surrounding I-10 within the project corridor is urbanized and largely built out. Geographic and planning constraints limit the potential for growth to occur within this area. Limited available open space remaining along the east end of the project corridor is either unavailable or too steep for new development. Hence, with the exception of the Cal Poly Pomona campus, most future growth in the area next to I-10 is expected to be associated with urban infill projects.

As stated in Chapter 1, the San Gabriel Valley and surrounding metropolitan region have been subject to continuing and ongoing growth for the past several decades. Eastern Los Angeles County and western San Bernardino County are continuing to grow at a rapid rate, including development of residential and employment land uses. This unabated growth has resulted in considerable congestion on area freeways, including I-10. Peak-period traffic demand on I-10 currently exceeds capacity and, as a result of forecasted growth, is expected to continue to exceed capacity. The I-10 HOV Lane Project would assist in addressing commuter needs while focusing limited transportation capital on improvements that support HOV modes.

The proposed project would be beneficial to the local economy because numerous direct and indirect jobs would be created during construction. In addition to direct construction employment, jobs would be created or sustained in the manufacturing, retail, and service sectors. The economic growth associated with the proposed project would result in an unquantifiable effect on the physical environment; however, these impacts would be distributed regionally, nationally, and even globally. Any local growth associated with construction activities would end after the project is operational. Given these considerations, growth-inducing impacts associated with the proposed project are determined to not be significant.

## 4.2 Cumulative Impacts

“Cumulative impacts” refers to two or more individual effects that may be significant when considered together, or that compound or increase other environmental impacts. The individual effects may be changes resulting from a single project or many separate projects. 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, and reasonably foreseeable future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time (CEQA Guidelines §15355). The impacts evaluated in this EIR are cumulative in nature due to the size of the project area and the assessment of impacts on a regional scale.

### 4.2.1 Planned and Current Projects in the Vicinity of the I-10 Corridor

A list of projects that could potentially contribute to the cumulative condition is provided in Table 4.2-1 and shown in Figure 4.2-1.

### 4.2.2 Cumulative Impacts Analysis

#### 4.2.2.1 Environmental Resources for Which No Potential Cumulative Effects would Result

Taking into consideration the above-noted projects that may contribute to cumulative impacts, in the context of the I-10 HOV Lane Project, there are several environmental resources that would not contribute to the cumulative condition. These are listed below:

**Biological Resources.** Given the following considerations, the proposed project as mitigated would not cause cumulative biological impacts. The proposed project would not (1) affect any federal or state listed species; (2) affect wetlands, waters of the United States, or lands set aside as ecologically significant by Los Angeles County; or (3) disturb species protected by the Migratory Bird Treaty Act of 1918, or nesting raptor species. Other proposed projects in the region likely would require removal of landscape trees; therefore, the proposed I-10 HOV Lane Project could conceivably add to the numbers of trees removed. This potential cumulative effect should be offset assuming similar species are planted out as landscaping once each project has been completed.

**Cultural and Paleontological Resources.** The proposed project would not result in any effects to archaeological, historic, or paleontological resources. While it is possible that previously unidentified cultural and paleontological resources may be discovered during construction, the proposed project and all cumulative project activities within the APE are required by law to be in compliance with established procedures for notification, identification, and recovery of resources uncovered during construction. Once the project is operational, no adverse cumulative effects on cultural or paleontological resources, either individually or in conjunction with other nearby projects, are expected.

**Geology, Soils, and Seismicity.** The proposed project would be designed to satisfy the most current seismic design standards and accommodate the potential for liquefaction. With major improvements to several bridges listed in Chapter 1, the proposed project would improve public safety. In addition, none of the related projects would be expected to produce adverse geotechnical effects.

**TABLE 4.2-1 CUMULATIVE PROJECTS LIST**

No. on Map	Project Name	Location	Project Description	Status
<b>City of Baldwin Park</b>				
1	Sierra Expansion Project (Baldwin Park Promenade)	North side of Baldwin Park Boulevard, between Francisquito Avenue and Tracy Street	The site comprises approximately 4 acres and is developed with roughly 50,000 square feet of new retail. Tenants include Smart & Final, CVS Drugs, IHOP, and Starbucks.	Planning stage
<b>City of West Covina</b>				
2	Westfield Expansion (Phase III)	Westfield West Covina Mall (112 Plaza Drive)	Phase III includes the addition of approximately 32,000 square feet and the reconfiguration of existing mall space. This phase will feature a second mini-anchor space of 45,000 square feet for Nordstrom Rack and Gold's Gym.	Construction stage
3	McIntyre Square	220 S. Citrus Street	McIntyre Square consists of 60,470 square feet of retail and restaurant space on 6.37 acres.	Construction stage
4	Fairfield Inn & Suites by Marriott	3211 E. Garvey Avenue North	Fairfield Inn & Suites by Marriott is a 5-story, 110-bedroom hotel covering 57,028 square feet.	Construction stage
5	West Covina Senior Villas II	1838 E. Workman Avenue	The Community Development Commission and West Covina Senior Villas II, LLC are collaborating in the development of an affordable housing complex on the 1.07-acre lot.	Construction stage
6	Former Wickes Furniture Site	301 S. Glendora Avenue	Redevelopment plans are being discussed with the new property owner for the 114,000-square-foot Wickes Furniture site.	Planning stage
<b>City of Covina</b>				
7	Olson Citrus Walk Project	Citrus Avenue, School Street, and Italia Street	Mixed-use development will consist of 49 residential units, 8 of which will be low-moderate income units. 8,300 square feet of retail space will be constructed with 12 residential units above. A portion of School Street will be vacated and a cul-de-sac built.	Planning stage
<b>City of Pomona</b>				
8	Pomona Valley Transfer Station Project	1371 East 9th Street	The Pomona Valley Transfer Station Project proposes construction and operation of a Municipal Solid Waste (MSW) transfer station on a 10.5-acre site.	Planning stage

**TABLE 4.2-1 CUMULATIVE PROJECTS LIST**

<b>No. on Map</b>	<b>Project Name</b>	<b>Location</b>	<b>Project Description</b>	<b>Status</b>
<b>Caltrans</b>				
9	I-10 HOV (Carpool) Lane Project	Between I-605 and Puente Avenue in the City of Baldwin Park	Construction of one HOV lane along I-10 in each direction (Phase I of the Proposed Project discussed in this EIR).	Construction stage
10	I-10/I-605 Interchange Improvement Project	I-10/I-605 Interchange in the City of Baldwin Park	The project involves construction of a direct connector from southbound I-605 to eastbound I-10.	Planning stage (construction scheduled for summer 2012)
<b>Metro</b>				
11	Alameda Corridor East Grade Separations (Phase II)	San Gabriel Valley: City of San Gabriel (2.2-mile trench); Nogales Street grade separation; Puente Avenue and Fairway Drive grade separations; Montebello Boulevard, Rose Hills, and Turnbull Canyon Road grade separations	Constructs bridges or underpasses and improves the operation of other railroad intersections along a 35-mile-long stretch of railroad main line in the San Gabriel Valley.	In various stages of design and planning
12	Metro Express Lanes	El Monte Busway (I-605 to Alameda Street)	Conversion of the I-10 El Monte Busway HOV lanes (I-605 to Alameda Street) to HOT lanes.	Construction anticipated to begin 2011
<b>Cal Poly, Pomona</b>				
13	College of Business Admin (Phase I)	Cal Poly, Pomona	This project will add approximately 74,500 gross square feet and will include the installation of state-of-the-art Learning Centered Technology Initiative equipment in all instructional and lecture classrooms.	Construction stage
14	ASI Recreation Center	Cal Poly, Pomona	The new Recreation Center will be 120,000 gross square feet, which includes replacement of the two existing state pools with a new pool.	Construction anticipated to begin June 2012
15	I-Poly High School	Cal Poly, Pomona	This project is the construction of approximately 52,000 square feet of permanent facilities for I-Poly, including associated site work. The building program includes classrooms, administrative offices, multipurpose room, small resource center, amphitheater, and outdoor learning spaces, as well as a small food service facility. Site improvements, in addition to landscaping, include telecommunications, utilities, roadways, and 186 parking spaces.	Construction stage

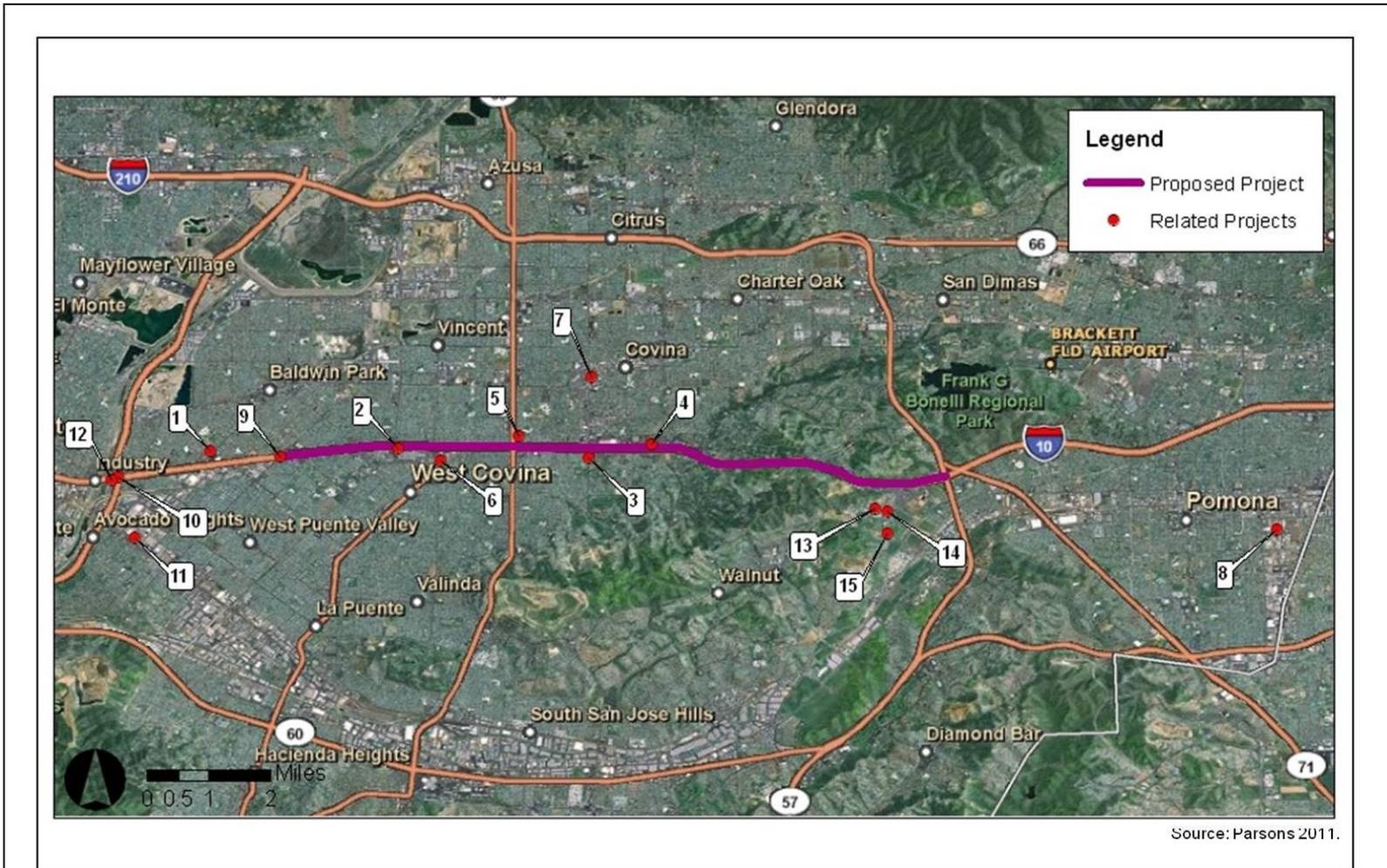


Figure 4.2-1 Location of Cumulative Projects



**Hazardous Waste.** Potential hazardous waste impacts could occur during construction due to (1) use of hazardous material products and (2) possibly encountering hazardous waste during excavation work. Cumulative issues associated with hazardous waste/materials are unlikely given the assumption that the proposed project and all of the above-listed project construction activities are required to handle, remove, transport, and dispose of hazardous materials and waste in compliance with existing federal, state, and local laws and regulations.

A section of the project corridor traverses land that is San Gabriel Valley Area 2 (SGVA2) National Priorities List, where contaminated groundwater may exist approximately 60 feet or more bgs. Based on preliminary construction plans, excavation activity would not likely reach the existing groundwater table located 60 feet or more bgs elevation. Should encroachment into SGVA2 occur, appropriate procedures would be followed to provide adequate protection to works and the public. Given these considerations, the proposed project would not contribute to the cumulative condition at the SGVA2 site.

Once construction is complete, no cumulative impacts would be associated with hazardous materials and wastes because, other than routine transport of hazardous materials and waste, the project would not produce hazardous materials and wastes.

**Hydrology.** The proposed project would not cause an increase in flood elevation within the water courses affected by freeway construction activities; therefore, the I-10 HOV Lane Project would not contribute to the cumulative condition.

**Land Use and Planning.** The proposed project would not contribute to the cumulative condition because it would not (1) require a revision to any of the adopted plans and policies at local and regional levels; (2) encourage land use changes that could be in conflict with long-term plans and policies; or (3) result in any new land use compatibility issues, either individually or in association with other projects in the vicinity of the corridor.

**Agriculture.** No land used for farming or forestry purposes would be affected by the proposed project, and proposed project impacts to agriculture would be insignificant; therefore, the project would not contribute to the cumulative condition.

**Parks and Recreation.** No direct impacts are expected to result from the proposed project during construction or operation of the proposed project. While temporary indirect air quality and noise impacts could occur at Jalapa Park in Covina, these potential impacts would not be cumulative because none of the above-listed projects are located in the immediate vicinity of Jalapa Park.

#### **4.2.2.2 Environmental Resources Having Potential Cumulative Effects**

The following discussion pertains to issue areas that could be affected by cumulative impacts.

**Aesthetics and Visual Resources.** Cumulatively, in conjunction with other I-10 projects (Nos. 9, 10, and 12) listed in Table 4.2-1, the I-10 corridor between the I-605 and SR 57/SR 71 interchanges is anticipated to undergo a substantial change from its existing design; however, none of the projects listed in Table 4.2-1 overlap with the footprint of the proposed project. These ongoing and future projects, including the proposed action, would cumulatively alter the existing aesthetic setting of the corridor. Primary cumulative visual impacts include removal of existing mature vegetation and construction of additional highway and building structures.

Removal of vegetation would be addressed on an individual project basis with incorporation of replacement landscaping. Each project includes planting of replacement vegetation, including trees, wherever feasible and safe. Caltrans will coordinate with each city in regards to landscaping activities.

The new projects should not be out of character with the surrounding environment, which is urbanized and includes major state and local transportation corridors. To maintain consistency within the subject I-10 corridor, Caltrans is proposing identical treatment of median walls for the design of HOV lanes between I-605 and Puente Avenue (see Figure 3.1-3). Bridge structure, retaining wall, and soundwall improvements are also planned to be designed with aesthetically pleasing designs. Vine plantings may also be used to cover soundwalls. Given that most of the existing corridor has a low visual quality, these architectural and landscape treatments should slightly improve the overall appearance of I-10 within and to the west of the project site to the I-605 interchange.

As a result of the above considerations, it is judged that the proposed project would not have an adverse cumulative effect on the visual environment, taking into account past, present, and reasonably foreseeable projects.

**Traffic.** During construction, it is possible that construction activities for other projects (i.e., both transportation and nontransportation types) could spatially overlap. This could possibly result in extended and unnecessary traffic delays on local streets in the vicinity of I-10 bridges and ramps where construction activities would occur. To avoid such a scenario, Caltrans will coordinate with internal and external agency staff to appropriately schedule project activities. Coordination with construction managers overseeing other projects may be necessary to coordinate schedules, especially where multiple traffic disruptions are planned within the same general vicinity. In addition to preparation of a TMP, mitigation measures for public outreach and transit agency coordination (see Section 3.2) will be implemented to further alleviate cumulative traffic conditions.

As stated in Section 1.2.1 above, the proposed action, as well as other current and planned improvement projects along the I-10 corridor, as listed in the SCAG 2008 RTP, is intended to meet the following regional goals:

1. Maximize mobility and accessibility for people and goods in the region

2. Ensure travel safety and reliability for all people and goods in the region
3. Protect the environment, improve air quality, and promote energy efficiency
4. Maximize the productivity of the transportation system

In this regard, operation of the project would result in cumulatively beneficial traffic and transportation impacts.

**Air Quality.** Construction activities would generate air pollutants, including emissions of dust, fumes, equipment exhaust, and other air contaminants. During construction, short-term degradation of air quality may occur. These cumulative impacts would not be adverse with application of mitigation as recommended in Section 3.3.4.

In terms of operational effects, the air quality analysis is based on the traffic data provided in the Traffic Impact Analysis for the proposed project. The Traffic Impact Analysis considered all of the reasonably foreseeable future projects in the project vicinity through 2040; therefore, the project effects described in Section 3.3.4 include cumulative projects through 2035 and/or the worst-case traffic condition (i.e., maximum traffic capacity) on I-10. Operational air quality benefits would be beneficial; therefore, they would not adversely cumulatively affect air quality.

**Noise and Vibration.** The noise analysis is based on the traffic data provided in the Traffic Impact Analysis. The Traffic Impact Analysis considered all of the reasonably foreseeable future projects in the project vicinity through 2035; therefore, the project effects described in Section 3.4.4 include cumulative projects through 2035 and/or the worst-case traffic condition (i.e., maximum traffic capacity) on I-10. The project would not have an adverse cumulative effect on noise or vibration.

**Water Quality and Stormwater Runoff.** During construction, the project could affect water quality through the discharge of pollutants into local surface water courses. These impacts are discussed in Section 3.9.4.

The current trend of urbanization in the eastern San Gabriel Valley is projected to continue. As shown in Figure 4.2-1, most of the ongoing and future development activity involves urban infill projects. These projects are expected to cumulatively result in increased loading of pollutants into surface waters. Stormwater discharges from highway and nonhighway projects in the vicinity of the project corridor, if not properly controlled, could cumulatively degrade water quality. In this regard, each project within the study area is required to comply with federal NPDES stormwater permit regulations governing discharges to surface waters. In particular, all projects over 1-acre in size must prepare a project-specific SWPPP that identifies construction site BMPs. For Caltrans projects smaller than 1-acre, contractors must incorporate requirements of a Water Pollution Control Plan into daily construction activities. Given these considerations, cumulative water quality impacts due to construction activities would be minimized. Local projects must comply with urban runoff ordinances.

For state highway projects, an SWMP is prepared to include design pollution prevention BMPs. With implementation of biofiltration strips/swales, detention devices, infiltration devices, media filters, or any combination thereof, the design of the proposed action aims to treat 100 percent of the onsite runoff water quality volume. In addition, where possible, the runoff from all bridges would be conveyed to Treatment BMPs; therefore, it can be concluded that the project would not substantially contribute to the cumulative condition.

**Public Services and Utilities.** Utilities, emergency services, and public services that could potentially be subject to cumulative construction effects would be generally confined to the immediate vicinity of the active work areas during individual project activities. Various water, sewer, power, and other utility lines currently cross the study area and may require relocation or special handling during construction activities. Proposed project construction activities requiring relocation of an underground sewer main, for example, could be scheduled to coincide with a telephone company project to underground telephone lines. In this way, a situation may be avoided where constant construction and accompanying traffic delays occur on a busy street due to poorly coordinated schedules. Assuming implementation of Caltrans' typical procedures for working with public and private utility companies during the design and construction processes, cumulative effects, if they occur, would be minor and temporary. For operational effects, no adverse cumulative effects on public services would be expected.

### 4.3 Climate Change

#### 4.3.1 Background on Climate Change with Respect to Transportation Projects

Climate change refers to long-term changes in temperature, precipitation, wind patterns, and other elements of the earth's climate system. An ever-increasing body of scientific research attributes these climatological changes to greenhouse gases (GHGs), particularly those generated from the production and use of fossil fuels.

While climate change has been a concern for several decades, the establishment of the Intergovernmental Panel on Climate Change (IPCC) by the United Nations and World Meteorological Organization's in 1988, has led to increased efforts devoted to GHG emissions reduction and climate change research and policy. These efforts are primarily concerned with the emissions of GHGs related to human activity that include carbon dioxide (CO<sub>2</sub>), methane, nitrous oxide, tetrafluoromethane, hexafluoroethane, sulfur hexafluoride, HFC-23 (fluoroform), HFC-134a (1,1,1,2-tetrafluoroethane), and HFC-152a (difluoroethane).

There are typically two terms used when discussing the impacts of climate change. "GHG Mitigation" is a term for reducing GHG emissions to reduce or "mitigate" the impacts of climate change. "Adaptation" refers to the effort of planning for and adapting to impacts due to climate change (e.g., adjusting transportation design standards to withstand more intense storms and higher sea levels)<sup>10</sup>.

---

<sup>10</sup> [http://climatechange.transportation.org/ghg\\_mitigation/](http://climatechange.transportation.org/ghg_mitigation/)

Transportation sources (i.e., passenger cars, light-duty trucks, other trucks, buses, and motorcycles) in the state of California make up the largest source, second to electricity generation, of GHG-emitting sources. Conversely, the main source of GHG emissions in the United States is electricity generation followed by transportation. The dominant GHG emitted is CO<sub>2</sub>, which is mostly from fossil fuel combustion.

There are four primary strategies for reducing GHG emissions from transportation sources: (1) improve system and operation efficiencies, (2) reduce growth of vehicle miles traveled (VMT), (3) transition to lower GHG fuels, and (4) improve vehicle technologies. To be most effective, all four should be pursued collectively. The following regulatory setting section outlines state and federal efforts to comprehensively reduce GHG emissions from transportation sources.

An individual project does not generate enough GHG emissions to significantly influence global climate change. Rather, global climate change is a cumulative impact. This means that a project may participate in a potential impact through its incremental contribution combined with the contributions of all other sources of GHG.<sup>11</sup> In assessing cumulative impacts, it must be determined if a project's incremental effect is "cumulatively considerable" (see CEQA Guidelines sections 15064(h)(1) and 15130). To make this determination, the incremental impacts of the project must be compared with the effects of past, current, and probable future projects. To gather sufficient information on a global scale of all past, current, and future projects to make this determination is a difficult, if not impossible, task.

The AB 32 Scoping Plan contains the main strategies California will use to reduce GHG. As part of its supporting documentation for the Draft Scoping Plan, CARB released the GHG inventory for California (Forecast last updated: 28 October 2010). The forecast, illustrated as Figure 4.3-1, is an estimate of the emissions expected to occur in the year 2020 if none of the foreseeable measures included in the Scoping Plan were implemented. The base year used for forecasting emissions is the average of statewide emissions in the GHG inventory for 2006, 2007, and 2008.

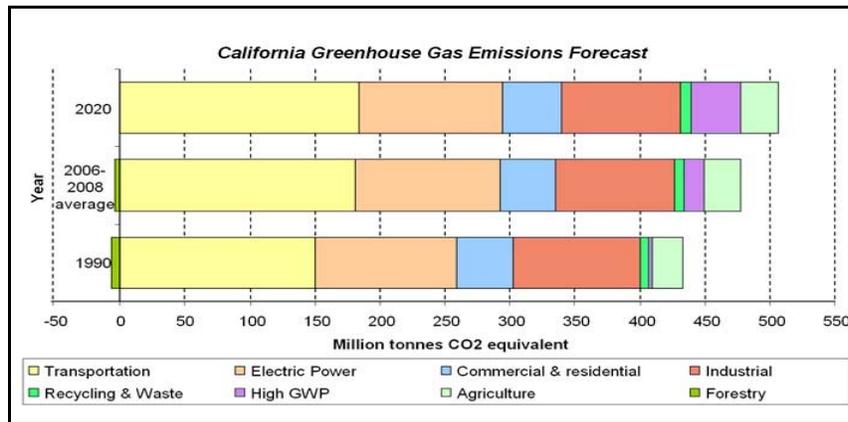
Caltrans and its parent agency, the Business, Transportation, and Housing Agency, have taken an active role in addressing GHG emission reduction and climate change. Recognizing that 98 percent of California's GHG emissions are from the burning of fossil fuels and 40 percent of all human-made GHG emissions are from transportation, Caltrans has created and is implementing the Climate Action Program at Caltrans that was published in December 2006 (see Climate Action Program at Caltrans (December 2006)).<sup>12</sup>

---

<sup>11</sup> This approach is supported by AEP: *Recommendations by the Association of Environmental Professionals on How to Analyze GHG Emissions and Global Climate Change in CEQA Documents* (March 5, 2007), as well as SCAQMD (Chapter 6: The CEQA Guide, April 2011) and U.S. Forest Service (Climate Change Considerations in Project-Level NEPA Analysis, July 13, 2009).

<sup>12</sup> Caltrans Climate Action Program is located at the following web address: [http://www.dot.ca.gov/hq/tpp/offices/ogm/key\\_reports\\_files/State\\_Wide\\_Strategy/Caltrans\\_Climate\\_Action\\_Program.pdf](http://www.dot.ca.gov/hq/tpp/offices/ogm/key_reports_files/State_Wide_Strategy/Caltrans_Climate_Action_Program.pdf).

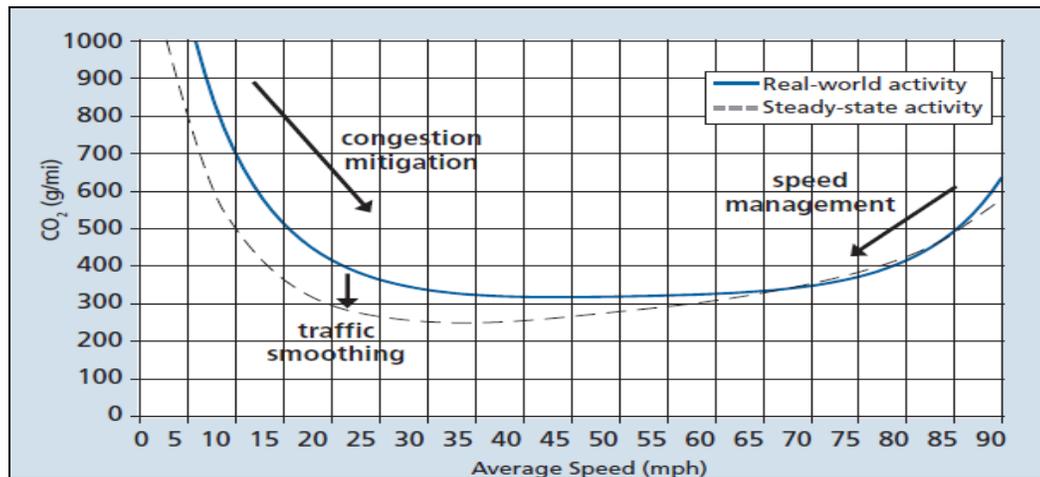
**Figure 4.3-1 California Greenhouse Gas Forecast**



Source: <http://www.arb.ca.gov/cc/inventory/data/forecast.htm>.

One of the main strategies in Caltrans' Climate Action Program to reduce GHG emissions is to make California's transportation system more efficient. As shown in Figure 4.3-2, the highest levels of carbon dioxide from mobile sources, such as automobiles, occur at stop-and-go speeds (zero to 25 miles per hour [mph]) and speeds higher than 55 mph; the most severe emissions occur from zero to 25 mph. To the extent that a project relieves congestion by enhancing operations and improving travel times in high congestion travel corridors, GHG emissions, particularly CO<sub>2</sub>, may be reduced.

**Figure 4.3-2 Possible Effect of Traffic Operation Strategies in Reducing On-road CO<sub>2</sub> Emission<sup>13</sup>**



<sup>13</sup> Traffic Congestion and Greenhouse Gases: Matthew Barth and Kanok Boriboonsomsin (TR News 268 May-June 2010) <<http://onlinepubs.trb.org/onlinepubs/trnews/trnews268.pdf>>.

### 4.3.2 Estimate of Greenhouse Gas Emissions for Proposed Project

The proposed project is a transportation facility; therefore, the GHG emissions would only include the direct GHG emissions that would be generated by construction and operational activities of the project. Construction emissions of CO<sub>2</sub> are temporary in nature and generally much smaller than operational emissions; therefore, these emissions were not included for analysis. Operational GHG emissions are associated with vehicle traffic along freeway segments and ramps within the project corridor.

Project-related GHG emissions (No Build and Build Alternatives) were calculated using the emission factors for on-road mobile sources, VMT along the project roadway segments, and guidelines of the Governor's Office of Planning and Research's (OPR) Technical Advisory (OPR, 2008).

Climate change, as it relates to human-made GHG emissions, is by nature a global and cumulative impact. According to the Association of Environmental Professionals (AEP), in its paper titled *Alternative Approaches to Analyzing Greenhouse Gas Emissions and Global Climate Change in CEQA Documents* (AEP, 2007), "an individual project does not generate enough GHG emissions to significantly influence global climate change. Global climate change is a cumulative impact; a project participates in this potential impact through its incremental contribution combined with the cumulative increase of all other sources of GHGs." The following GHG emissions estimate at the project-level is presented for the purpose of disclosing all project-related emissions.

Tables 4.3-1 and 4.3-2 summarize the annual operational GHG emissions associated with vehicle traffic along the project corridor. Table 4.3-1 provides the GHG emission estimates for baseline year 2008 (existing conditions), as well as the build and no-build scenarios during the opening year 2015. Table 4.3-2 presents the GHG emission estimates for baseline year 2008 (existing conditions), as well as build and no-build scenarios in horizon year 2035. As shown, CO<sub>2</sub> emissions are the primary GHG of concern because vehicle operation does not result in appreciable amounts of other GHGs.

The data in Table 4.3-1 show that in the opening year 2015, the Proposed Project Alternative annual GHG emissions would be less than the 2008 baseline emissions along several segments of the project corridor and shows a 5 percent increase for the entire corridor. Table 4.3-1 also indicates a 4 percent increase in 2015 GHG emissions for the Proposed Project Alternative compared with the 2015 no-build conditions for the project corridor.

Table 4.3-2 shows that for horizon year 2035, the annual operational GHG emissions of the Proposed Project Alternative would increase relative to the 2008 baseline, and also compared to the No Build Alternative emissions; however, at the time of preparation of this report, no significance criterion was established for transportation projects to evaluate the project GHG emissions impact.

**TABLE 4.3-1 ANNUAL OPERATIONAL GHG EMISSIONS ASSOCIATED WITH PROPOSED PROJECT  
 (EXISTING AND OPENING YEAR)**

Segment of I-10	Greenhouse Gas Emissions (Metric tons/year)									Change of 2015 Build Emission (mtons/yr CO <sub>2</sub> e), from	
	Existing - 2008			No Build - 2015			Build - 2015			2008	2015 - No Build
	CO <sub>2</sub>	CH <sub>4</sub>	CO <sub>2</sub> e	CO <sub>2</sub>	CH <sub>4</sub>	CO <sub>2</sub> e	CO <sub>2</sub>	CH <sub>4</sub>	CO <sub>2</sub> e		
Baldwin to Santa Anita	24,654	1.73	24,691	24,401	1.00	24,422	22,024	0.92	22,044	-2,647	-2,379
Santa Anita to Valley/Peck	27,653	1.93	27,694	27,400	1.09	27,423	28,204	1.14	28,228	535	806
Valley/Peck to Stewart	11,534	0.80	11,551	11,613	0.48	11,623	12,050	0.50	12,061	510	437
Stewart to Garvey	28,032	2.01	28,074	28,262	1.20	28,287	29,809	1.28	29,835	1,762	1,549
Garvey to I-605	23,536	1.70	23,571	24,791	1.08	24,814	25,995	1.15	26,019	2,448	1,205
I-605 to Frazier	20,341	1.49	20,373	19,311	0.82	19,329	20,762	0.91	20,781	408	1,452
Frazier to Baldwin Park	31,486	2.29	31,534	29,635	1.24	29,661	31,941	1.36	31,969	435	2,308
Baldwin Park to Vineland/Francisquito	20,141	1.48	20,172	18,582	0.78	18,598	19,196	0.83	19,214	-958	615
Vineland/Francisquito to Puente	29,658	2.17	29,704	26,889	1.13	26,913	28,317	1.19	28,342	-1,362	1,429
Puente to Pacific/Orange	42,542	3.02	42,605	45,035	1.92	45,075	45,553	1.91	45,593	2,988	518
Pacific/Orange to Vincent	40,075	2.82	40,134	37,396	1.59	37,429	38,851	1.63	38,885	-1,248	1,456
Vincent to Azusa	44,434	3.17	44,500	45,195	1.92	45,235	47,269	1.98	47,310	2,810	2,075
Azusa to Citrus	37,418	2.65	37,474	38,077	1.61	38,111	40,356	1.68	40,391	2,918	2,281
Citrus to Barranca	20,281	1.44	20,311	21,005	0.89	21,023	21,991	0.91	22,010	1,699	987
Barranca to Grand	19,294	1.37	19,322	19,838	0.83	19,856	20,831	0.87	20,849	1,526	993
Grand to Holt	17,510	1.22	17,536	17,977	0.75	17,993	18,847	0.77	18,863	1,328	870
Holt to Via Verde	54,715	3.90	54,797	56,343	2.39	56,394	57,816	2.43	57,867	3,070	1,474
Via Verde to Kellogg	58,452	4.15	58,538	59,895	2.56	59,948	60,603	2.52	60,656	2,118	708
Kellogg to SR-57 Off	12,758	0.89	12,777	13,175	0.55	13,186	13,893	0.56	13,905	1,128	719
SR-57 Off to SR-71	5,999	0.41	6,008	6,322	0.25	6,328	6,666	0.26	6,671	663	343
SR-57 On to Fairplex	38,663	2.72	38,720	40,804	1.69	40,839	44,272	1.89	44,312	5,591	3,473
Fairplex to Dudley	19,874	1.41	19,904	21,168	0.90	21,187	22,642	0.97	22,662	2,758	1,476
Dudley to White	40,821	2.91	40,882	43,810	1.84	43,849	46,356	1.99	46,397	5,516	2,548
Corridor Total	669,871	47.68	670,870	676,927	28.50	677,522	704,244	29.66	704,864	33,994 (5%)	27,342 (4%)

One metric ton equals 2,204.6 lbs  
 CO<sub>2</sub>e = carbon dioxide equivalent of combined emissions of all GHGs. The CO<sub>2</sub>-equivalent emission of each GHG is the emission rate multiplied by its corresponding global warming potential (GWP). The GWP for CH<sub>4</sub> is 21.

Source: Parsons, 2011.

**TABLE 4.3-2 ANNUAL OPERATIONAL GHG EMISSIONS ASSOCIATED WITH PROPOSED PROJECT  
(EXISTING AND HORIZON YEAR)**

Segment of I-10	Greenhouse Gas Emissions (Metric tons/year)									Change of 2035 Build Emission (mtons/yr CO <sub>2</sub> e), from	
	Existing - 2008			No Build - 2035			Build - 2035			2008	2035 - No Build
	CO <sub>2</sub>	CH <sub>4</sub>	CO <sub>2</sub> e	CO <sub>2</sub>	CH <sub>4</sub>	CO <sub>2</sub> e	CO <sub>2</sub>	CH <sub>4</sub>	CO <sub>2</sub> e		
Baldwin to Santa Anita	24,654	1.73	24,691	28,638	0.52	28,649	28,558	0.52	28,568	3,878	-80
Santa Anita to Valley/Peck	27,653	1.93	27,694	30,644	0.52	30,655	31,040	0.54	31,051	3,357	396
Valley/Peck to Stewart	11,534	0.80	11,551	13,531	0.25	13,536	13,793	0.25	13,798	2,247	262
Stewart to Garvey	28,032	2.01	28,074	34,526	0.69	34,540	35,508	0.72	35,523	7,449	983
Garvey to I-605	23,536	1.70	23,571	30,147	0.64	30,160	30,863	0.66	30,877	7,306	717
I-605 to Frazier	20,341	1.49	20,373	24,160	0.50	24,171	25,542	0.55	25,553	5,180	1,382
Frazier to Baldwin Park	31,486	2.29	31,534	36,736	0.72	36,751	39,139	0.79	39,156	7,622	2,405
Baldwin Park to Vineland/Francisquito	20,141	1.48	20,172	23,306	0.48	23,316	25,018	0.52	25,029	4,857	1,713
Vineland/Francisquito to Puente	29,658	2.17	29,704	32,720	0.65	32,734	36,832	0.77	36,848	7,144	4,115
Puente to Pacific/Orange	42,542	3.02	42,605	56,210	1.17	56,234	54,239	1.03	54,261	11,656	-1,973
Pacific/Orange to Vincent	40,075	2.82	40,134	45,936	0.93	45,956	45,714	0.86	45,732	5,599	-223
Vincent to Azusa	44,434	3.17	44,500	55,417	1.14	55,440	55,920	1.06	55,942	11,442	502
Azusa to Citrus	37,418	2.65	37,474	46,499	0.91	46,518	48,062	0.89	48,080	10,606	1,562
Citrus to Barranca	20,281	1.44	20,311	25,457	0.52	25,468	26,352	0.49	26,362	6,051	894
Barranca to Grand	19,294	1.37	19,322	24,081	0.48	24,091	25,372	0.48	25,382	6,060	1,291
Grand to Holt	17,510	1.22	17,536	23,469	0.47	23,479	23,543	0.44	23,552	6,016	73
Holt to Via Verde	54,715	3.90	54,797	76,639	1.65	76,673	75,669	1.52	75,701	20,904	-972
Via Verde to Kellogg	58,452	4.15	58,538	82,635	1.73	82,671	79,736	1.57	79,769	21,230	-2,902
Kellogg to SR-57 Off	12,758	0.89	12,777	17,114	0.34	17,121	17,442	0.33	17,449	4,672	328
SR-57 Off to SR-71	5,999	0.41	6,008	7,116	0.12	7,118	7,447	0.12	7,450	1,442	331
SR-57 On to Fairplex	38,663	2.72	38,720	49,433	0.95	49,453	54,105	1.09	54,128	15,407	4,674
Fairplex to Dudley	19,874	1.41	19,904	25,433	0.50	25,443	26,904	0.55	26,916	7,012	1,473
Dudley to White	40,821	2.91	40,882	53,974	1.05	53,996	57,785	1.18	57,809	16,928	3,813
Corridor Total	669,871	47.68	670,870	843,821	16.94	844,173	864,584	16.94	864,936	194,066 (29.8%)	20,763 (2.5%)

One metric ton equals 2,204.6 lbs  
CO<sub>2</sub>e = carbon dioxide equivalent of combined emissions of all GHGs. The CO<sub>2</sub>-equivalent emission of each GHG is the emission rate multiplied by its corresponding global warming potential (GWP). The GWP for CH<sub>4</sub> is 21.  
Source: Parsons, 2011.

It should be noted that while the CO<sub>2</sub> emissions factor does assume certain reductions in vehicle emissions due to future vehicle models operating more efficiently, the factor does not take into account additional reductions in vehicle emissions that would take place in response to AB 1493, when mobile source emission reductions are ultimately implemented through legislation.

#### **4.4 Significant Environmental Effects which Cannot be Avoided if the Proposed Project is Implemented**

Section 15126.2(b) of the CEQA Guidelines requires that an EIR “describe any significant impacts, including those which can be mitigated, but not reduced to a level of insignificance. Where there are impacts that cannot be alleviated without imposing an alternative design, their implications, and the reasons why the project is being proposed, notwithstanding their effect, should be described.”

Project-level environmental review is described in Chapter 3 of this EIR. The impact assessment was conducted with the assumption that the project would be constructed to include design features and BMPs, as well as requirements associated with applicable laws and regulations. As a result of these analyses, it has been determined that all impacts determined to be potentially significant could be offset to a less-than-significant level through application of mitigation measures.

#### **4.5 Significant Irreversible Environmental Changes which Would be Caused by the Proposed Project Should it be Implemented**

Analysis of significant irreversible environmental changes that would be caused by the proposed project is required by CEQA, Section 15126.2(c). With regard to this review, reference is directed to the individual Chapter 3 sections addressing each issue area.

Implementation of the I-10 HOV Lane Project would result in permanent modification to the existing freeway facility and, in this sense, it is considered irreversible for all practical purposes. The proposed project would also irreversibly, but insignificantly, alter the visual landscape along the freeway.

However, because nearly all of the proposed improvements would affect previously disturbed and/or paved surfaces, the irreversible effect on the natural environment is considered to be minimal. In this regard, the proposed project would not result in irreversible, direct losses to the native habitat or cultural resources.

A large quantity of nonrenewable energy resources would be consumed during construction of the proposed project. This includes burning of fossil fuels for construction equipment and vehicle operations. The use of these nonrenewable energy resources is considered to incrementally add to the loss of these resources; however, this impact would be offset by energy saved after the HOV lanes are in operation, as described below.

Recurrent congestion contributes to inefficient energy consumption as vehicles use extra fuels while idling in stop-and-go traffic or moving at slow speeds. Without adding the proposed HOV lanes, this congestion is predicted to worsen along the mixed-flow traffic lanes, with associated low travel speeds and long delays during peak hours. Such recurrent traffic congestion would result in inefficient energy consumption.

# **CHAPTER 5**

# **ALTERNATIVES**



## **5.0 Alternatives**

In accordance with Section 15126.6 of the State CEQA Guidelines, an EIR must address a range of project alternatives that would feasibly accomplish most of the basic objectives of the proposed project while avoiding or substantially lessening one or more of the significant environmental effects that are assessed in the EIR. The No Project Alternative must also be evaluated, with its impacts, as part of the EIR [CEQA Guidelines Section 15126.6(e)].

The factors that may be taken into account when addressing the feasibility of alternative locations include site suitability, availability of infrastructure, general plan consistency, other plans or regulatory limitation, jurisdictional boundaries, and whether the proponent can reasonably acquire, control, or otherwise have access to the alternative site. The decision to select alternative locations needs to be based on whether they would avoid or substantially lessen any of the significant effects of the project. Should the lead agency determine that no feasible alternative locations for the project exist, then the reasons for this determination must be disclosed within the alternatives discussion. In addition, the alternatives analysis must include a comparative evaluation of the No Project Alternative, which allows decision makers to compare the impacts of approving the proposed project with the impacts of not approving the project.

Because the I-10 HOV Lane Project would involve addition of lanes and other improvements to an existing freeway that has been operational since the 1950s, and the alignment traverses built-out areas, there are no options for alternative project locations. To meet the proposed project's purpose and objectives, including closure of a current gap between existing and planned HOV facilities, the HOV lanes could not be located along alternative alignments outside of the existing developed area. As a result, selection of an alternative alignment is not a viable consideration for avoiding the impacts identified by the EIR in association with the proposed project.

### **5.1 Alternatives Considered**

The current state of design and planning for the proposed project is the result of an ongoing, comprehensive process that began in the early 1990s. In 1991, Caltrans conducted a study that identified long-term operational and capacity deficiencies on I-10 from Baldwin Avenue to Citrus Street. This study was documented in the Project Study Report (PSR) approved on February 6, 1991. It developed several alternative solutions to address the operational deficiencies.

In May 1994, a separate PSR was approved by Caltrans for I-10 HOV Lane between Citrus Street and the SR 57/I-210/SR 71 interchange. Both PSRs included discussion about the following five alternatives: (1) No Project, (2) Traffic System Management (TSM), (3) HOV Standard and Nonstandard Treatments, (4) Additional General Purpose Lane, and (5)

Elevated Facility (Buses and HOV). Caltrans' proposal is to construct a variation of the nonstandard HOV lane alternative recommended in the approved PSRs.

This Draft EIR follows previous environmental documentation that was prepared for a longer HOV lane improvement project encompassing the same portion of I-10. In the early 2000s, Caltrans, in cooperation with Metro, completed an IS/EA to assess impacts associated with an approximately 11.2-mile-long section of I-10 from I-605 easterly to the SR 57/SR 71/I-210 interchange. The IS/EA evaluated a range of alternatives to meet existing (at the time) and future traffic demands. This process resulted in selection of the Build Nonstandard HOV Lane as the preferred alternative for subsequent design and construction.

### **5.1.1 Standard HOV Lane Alternative**

The Standard HOV Lane Alternative would also provide construction of an HOV lane in each direction; however, it proposes a standard 10-foot-wide median and 12-foot-wide lanes. This cross section would require typical mainline widening of approximately 23 feet in each direction. This would result in the need for 10-foot-wide minimum sliver ROW acquisitions along approximately 4 miles of Garvey Avenue, resulting in the acquisition of many residential and business properties. It would have substantial utility impacts and create substantial construction disturbances beyond those anticipated for the proposed project. Significant ROW and traffic impacts are also likely at the local interchanges because the ramps would have to be reconfigured to provide acceptable geometrics. Vertical clearance constraints would be magnified and, in turn, so would the drainage and utility work associated with the profile lowering.

When compared to the Nonstandard HOV Lane Alternative, the Standard HOV Lane Alternative would provide only nominal operational benefits and safety improvements, yet have substantially higher cost and ROW and utility impacts. For these reasons, the Standard HOV Lane Alternative has been eliminated from further consideration.

### **5.1.2 Additional General Purpose Lane Alternative**

An alternative that would add one mixed-flow lane in each direction instead of an HOV lane was considered. First, the Additional General Purpose Lane Alternative would not be consistent with the RTP and the ultimate configuration of I-10 as defined in the Project Reports as two HOV plus eight mixed-flow lanes. In addition, the Additional General Purpose Lane Alternative would not achieve the project purpose to increase the person-carrying capacity and promotion of ride sharing on I-10. Finally, any such alternative would not allow a logical extension to close an existing 9.2-mile-long HOV lane system gap; therefore, the Additional General Purpose Lane Alternative has been eliminated from further analysis.

### **5.1.3 Elevated Facility Alternative**

The Elevated Facility Alternative would utilize the existing median to construct a viaduct over the existing freeway. While this alternative would achieve the project purpose to

increase the person-carrying capacity and promote ride sharing on I-10, while also providing a logical extension to close an existing 9.2-mile-long HOV lane system gap, this alternative would not be consistent with the RTP and the ultimate configuration of I-10 as defined in the Project Reports. In addition, this alternative would definitely involve unspecified, but excessive ROW and construction costs and impacts to build an elevated HOV facility. For these reasons, the Elevated Facility Alternative has been eliminated from further analysis.

#### **5.1.4 Traffic System Management Alternative**

TSM strategies consist of actions that increase the efficiency of existing facilities; they are actions that increase the number of vehicle trips a facility can carry without increasing the number of through lanes. The proposed project would help foster a unified urban transportation system by supporting automobile, public/private transit, ridesharing programs, and bicycle/pedestrian facility improvements; therefore, it would complement both existing and future TSM/Transportation Demand Management (TDM) improvements within the study area. Although TSM measures alone could not satisfy the purpose and objectives of the proposed project, the following TSM measures have been incorporated into the Proposed Project Alternative: ramp metering, auxiliary lanes, turning lanes, and traffic signal coordination; however, major construction would be necessary to substantially improve traffic LOS. Because the TSM Alternative would not be consistent with the RTP and the ultimate configuration of I-10 as defined in the Project Reports, would not achieve the project goals and objectives to increase the person-carrying capacity and promote ride sharing on I-10, and would not allow a logical extension to close an existing 9.2-mile-long HOV lane system gap, the TSM Alternative has been eliminated from further analysis.

#### **5.2 No Project Alternative**

This alternative provides a baseline scenario for comparison with the proposed alternative. The No Project Alternative assumes HOV improvements associated with the proposed project would not be made to the existing facility. With this alternative, temporary (i.e., construction) impacts associated with each of the build alternatives would be avoided. However, the No Project Alternative would not be consistent with local and regional plans of Metro and Caltrans because additional traffic demands would not be satisfied. Without improvements to I-10, safety, travel times, fuel consumption, and air quality would deteriorate throughout the project corridor.

#### **5.3 Nonstandard HOV Lane Alternative (Proposed Project)**

The Nonstandard HOV Lane Alternative is the proposed project and is fully described in Chapter 1 of this document.

## 5.4 Environmentally Superior Alternative

This section summarizes the environmental advantages and disadvantages associated with the proposed project and the alternatives. Based upon this discussion, the environmentally superior alternative is selected as required by CEQA.

CEQA does not provide specific direction regarding the methodology of comparing alternatives and the proposed project. Each project must be evaluated for the issues and impacts that are most important; this will vary depending on the project type and the environmental setting. Issue areas that are generally given more weight in comparing alternatives are those with significant long-term impacts. Impacts that are short-term (e.g., construction-related impacts) or those that can be mitigated to less than significant levels are generally considered less important.

This comparison is designed to satisfy the requirements of the CEQA Guidelines Section 15126.6(d), Evaluation of Alternatives, which states that:

“The EIR shall include sufficient information about each alternative to allow meaningful evaluation, analysis, and comparison with the proposed project. If an alternative would cause one or more significant effects in addition to those that would be caused by the project as proposed, the significant effects of the alternative shall be discussed, but in less detail than the significant effects of the project as proposed.”

The CEQA Guidelines (Section 15126.6(e)(2)) also state that “If the environmentally superior alternative is the “No Project” alternative, the EIR would also identify an environmentally superior alternative among the other alternatives.”

In accordance with CEQA Guidelines Section 15126.6(d), this EIR provides sufficient information about each alternative to allow meaningful evaluation, analysis, and comparison with the proposed project and the other alternatives. The following impact comparison between project alternatives is based on the analyses provided in Chapter 3.0, Environmental Analysis, and in Section 4.2, Cumulative Impacts. An alternative would be considered superior to the proposed project if there is a reduction in impact classification.

Both the Proposed Project Alternative and the No Project Alternative are judged to be environmentally superior to the Standard HOV Lane Alternative and the Elevated Facility Alternative. While achieving the project purpose to close the 9.2-mile-long gap between HOV lane termini, the latter two alternatives would result in more extensive impacts, especially within the following issue areas: aesthetics and visual resources, noise, biological, land use (particularly acquisitions), and construction.

In comparing the proposed project with the TSM Alternative, it is important to note that the proposed project would include TSM components, as noted above in Section 5.1.4; therefore,

it is not possible to do a direct comparison between these two alternatives. In general, however, the TSM Alternative would be comparable in terms of impacts to the No Project Alternative as discussed in the following paragraphs.

In comparing the Nonstandard HOV Lane Alternative with the No Project Alternative, the key consideration is balancing the short-term construction impacts with the long-term benefits associated with I-10 operational improvements. In this regard, attention is directed to the following considerations:

- Construction impacts assessed by issue area in Chapter 3 of this EIR would not occur for the No Project Alternative. All significant impacts due to construction activities can be mitigated to a level of insignificance.
- While there would be degradation in traffic conditions on both the freeway mainline and local streets during construction of the proposed project, the mobility, capacity, and mode-shift benefits associated with the proposed project would not occur under the No Project Alternative. Peak-period traffic delays beyond those expected for proposed project operations would occur in both the westbound and eastbound directions.
- While there would not be temporary, localized increases in construction air emissions with the No Project Alternative, without the proposed project there would be long-term air quality deterioration associated with expected LOS degradation.
- While there would be no construction-related noise associated with the No Project Alternative, without the proposed project there would be more operational noise related to worse stop-and-go traffic conditions on the freeway mainline and ramps.
- While there would be no construction-related property acquisitions under the No Project Alternative, the No Project Alternative would be inconsistent with several regional planning documents identified in Section 1.4.8 of this EIR.
- The No Project Alternative would not achieve the purpose and objectives outlined in Chapter 1, Project Description. In particular, this alternative would not close the gap between existing and planned HOV facilities.

Given the relative impacts and merits of the proposed project and each alternative that was considered in this EIR, and based on the discussion presented above, as designed and with incorporation of the recommended mitigation measures, the Nonstandard HOV Lane Alternative (Proposed Project Alternative) is considered to be the environmentally superior alternative.

This page intentionally left blank.

**CHAPTER 6**  
**REFERENCES**



## 6.0 References

- Access Paratransit. 2011. Access Paratransit Web site retrieved from <http://www.asila.org> on September 19, 2011.
- American Society for Testing and Materials (ASTM) Designation E 1527-05. 2005. Standard Practice for Environmental Project Site Assessments: Phase I Environmental Property Assessment Process.
- Association of Environmental Professionals (AEP). 2007. *Alternative Approaches to Analyzing Greenhouse Gas Emissions and Global Climate Change in CEQA Documents*.
- Brenzel, K.N., Editor. 2001. *Sunset Western Garden Book*. Sunset Publishing Corporation, Menlo Park, California.
- California Department of Transportation (Caltrans). 1993a. *Construction of High Occupancy Vehicle (HOV) Lanes between Puente Avenue and Citrus Avenue in the cities of Baldwin Park and West Covina Visual Impact Assessment Report*.
- . 1993b. *Improvements to Interstate 10, Construction of High Occupancy Vehicle (HOV) Lanes between Puente Avenue and Citrus Avenue in the Cities of Baldwin Park and West Covina, 07-LA-10-33.4/37.5. Water Quality Report*. Prepared by Parsons Brinckerhoff Quade and Douglas. August.
- . 1993c. Geotechnical Investigation of the LA-10 HOV-Project 1, LA-10 P.M. 28.0 to P.M. 42.4, Los Angeles County. September.
- . 1993d. *Construction of High Occupancy Vehicle (HOV) Lanes between Puente Avenue and Citrus Avenue in the cities of Baldwin Park and West Covina Visual Impact Assessment Report*.
- . 1993e. *Improvements to Interstate 10, Construction of High Occupancy Vehicle (HOV) Lanes between Puente Avenue and Citrus Avenue, 07-LA-10-33.4/37.5. Floodplain Evaluation and Location Hydraulic Study*. November.
- . 1994. *Draft Project Report/Project Approval Report, 07-LA-10 OM 37.5/42.4, 2EA 119341, San Bernardino Freeway, Citrus Ave. to Routes 57, 71, and 210, Construct HOV Lane (Segment 3)*. November.
- . 1995a. *I-10 High Occupancy Vehicle Lanes Project 07H003 Segment 3 (07-LA-10 37.5 to 42.2) Environmental Assessment/Initial Study Supporting Technical Reports Visual Impact Study*.

- . 1995b. *I-10 High Occupancy Vehicle Lanes Project 07H003, Segment 3 (07-LA-10 37.5 TO 42.4), Environmental Assessment / Initial Study Supporting Technical Reports. Water Quality and Floodplains*. Prepared by Parsons Brinckerhoff Quade and Douglas. January.
- . 1998a. *Transportation Project-Level Carbon Monoxide Protocol (UCD-ITS-RR-97-21, 1997)*.
- . 1998b. Technical Noise Supplement. October. Sacramento, CA: Environmental Program, Noise, Air Quality, and Hazardous Waste Management Office. Sacramento, CA. Available: ([http://www.dot.ca.gov/hq/env/noise/pub/tens\\_complete.pdf](http://www.dot.ca.gov/hq/env/noise/pub/tens_complete.pdf)).
- . 2000a. *Negative Archaeological Survey Report, 07-LA-10-31.2*. September 28.
- . 2000b. Memorandum from Gustavo Ortega, C.E.G, C.HG. to Ron Kosinski, Chief, District 07 Office of Environmental Planning. September 15.
- . 2001. Memo with Subject: Visual Impact Study Update for the Proposed Project to Add One High-Occupancy Vehicle Lane in each Direction on Interstate Route 10 from Interstate Route 605 to State Route 57.
- . 2002a. *Negative Archaeological Survey Report, 07-LA-10-33.3*. September 2.
- . 2002b. *Historic Architectural Survey Report*.
- . 2002c. *Interstate Route 10 High Occupancy Vehicle Lane Project; Socioeconomics, Land Use, Utilities and Public Services Technical Report*. Prepared by P&D Consultants. July.
- . 2002d. Memorandum from Shirley Pak, Office of Engineering Services – Storm Water Unit, to Gary Iverson, Division of Environmental Planning. December 13.
- . 2002e. *Draft Project Report, On Route (San Bernardino Freeway) from Puente Avenue in the City of Baldwin Park to Citrus Street in the City of West Covina, 07-LA-10 PM 33.4/37.5, 07272-117080*. May.
- . 2003. Construction Manual. December.
- . 2004. *Supplemental Traffic Noise Study Report, Route 10 HOV Project, from Route 605 to Route 10/57/210/71 Interchange, Forest Lawn Cemetery of Covina Hills, 07-LA-10-KP 50.1/68.2, EA 117080*. January 2.
- . 2006b. *Highway Design Manual. Chapter 1000 Bikeway Planning and Design*. July.

- . 2007. Project Planning and Design Guide. Retrieved from <http://www.dot.ca.gov/hq/oppd/stormwtr/swdr2010/Caltrans-Cover-7-1-10.pdf>.
- . 2008a. *Traffic Noise Study Report (Environmental Re-Evaluation), Route 10 HOV Project, in Los Angeles County from Puente Avenue in Baldwin Park to State Route 57 in Pomona, 07-LA-10 PM 33.4/42.4, EA117081/119341*. December 12.
- . 2008b. *Interstate 10 High Occupancy Vehicle Lane from Puente Avenue to the State Route 57/State Route 71/Interstate 210 Interchange, Community Impact Assessment*. Prepared by Parsons. September.
- . 2008c. *Interstate 10 High Occupancy Vehicle Lane from Puente Avenue to the State Route 57/State Route 71/Interstate Route 210 Interchange, Non-Highway Transportation Technical Report*. Prepared by Parsons. December.
- . 2009a. *I-10 Proposed HOV Traffic Study from Puente Avenue Interchange (PM 33.4) to the SR-57/SR-71 Interchange (PM 42.4)*. Prepared by Parsons. April.
- . 2009b. Technical Noise Supplement (TeNS). November.
- . 2010a. *Historic Property Survey Report*.
- . 2010b. *Standard Environmental Reference*.
- . 2010c. *Initial Site Assessment Summary for Parcel 79812 (APN# 8460-006-043, Wal-Mart) Located at 3250 Big Dalton Avenue, Baldwin Park, California, 91706*. August 10.
- . 2010d. *Initial Site Assessment Summary for Parcel 79812 (APN# 8460-006-043, Wal-Mart) Located at 3250 Big Dalton Avenue, Baldwin Park, California, 91706*. August 10.
- . 2010e. *I-10 HOV Lane Relocation Impact Statement*.
- . 2011a. *Air Quality Report, Construct HOV Lanes and Soundwalls, Interstate 10 from Puente Avenue to SR-57/SR-71/I-210 Interchange, EA 1170U & 11934, 07-LA-10 PM 33.4/42.4*. August..
- . 2011b. Standard Environmental Reference, Online reference: <http://www.dot.ca.gov/ser/vol1/sec3/physical/ch11air/chap11.htm>. August 8
- . 2011c. *Update on Initial Site Assessment (ISA) Summary for Parcel 79812 (APN# 8460-006-043, Wal-Mart Real Estate Business) Located at 3250 Big Dalton Avenue, Baldwin Park, California, 91706*. April 14.

- . 2011d. *Parcel Hazardous Waste Assessment for Parcel Fee and/or Easement Acquisition for Caltrans Parcels 79744 (APN# 8848-029-063) and 79745 (APN# 8848-029-064) in City of Covina in Los Angeles County*. April 28.
- . 2011e. *Parcel Hazardous Waste Assessment for Parcel Fee and/or Easement Acquisition for Caltrans Parcels 79746 (APN# 8848-029-065), 79747 (APN# 8848-029-066), 79748 (APN# 8848-029-062), and 79749 (APN# 8848-029-061) in City of Covina in Los Angeles County*. April 28.
- . 2011f. *Parcel Hazardous Waste Assessment for Parcel Fee and/or Easement Acquisition for Caltrans Parcels 79751 (APN# 8848-010-011) and 79752 (APN# 8848-010-021) in City of Covina in Los Angeles County*. April 28.
- . 2011g. *Parcel Hazardous Waste Assessment for Temporary Construction Easement Acquisition for Caltrans Parcel 79766 (APN# 8277-008-034) in City of Covina in Los Angeles County*. April 28.
- . 2011h. *Parcel Hazardous Waste Assessment for Easement Acquisition for Caltrans Parcel 79824 (APN# 8448-019-049) in City of Covina in Los Angeles County*. May 8.
- . 2011i. *Parcel Hazardous Waste Assessment for Easement Acquisition for Caltrans Parcels 80234 (APN# 8451-012-040) and 80235 (APN# 8451-012-047) in City of Covina in Los Angeles County*. May 9.
- . 2011j. *Parcel Hazardous Waste Assessment for Easement Acquisition for Caltrans Parcel 80246 (APN# 8448-010-900) in City of Covina in Los Angeles County*. May 8.
- . 2011k. Memorandum from Hung Po Yang, P.E., Transportation Engineer – Civil to Refugio Dominguez, Senior Engineer, District 07, Office of Design B. May 4.
- . 2011l. *Traffic Impact Analysis, Interstate Route 10 at Vincent Avenue*. Prepared by Kenneth C. Young, Senior Transportation Engineer. June 3.

California Highways. 2011. Retrieved from [www.cahighways.org](http://www.cahighways.org).

Cal Poly Pomona (California State Polytechnic University, Pomona). 2011. *Environmental Initial Study for the Cal Poly Pomona Campus Master Plan Revision*. Accessed online at: [http://projects.sasaki.com/calpolypomona/Documents/PPP-FinalInitialStudy042011\\_ForViewing\\_OPT\\_000.pdf](http://projects.sasaki.com/calpolypomona/Documents/PPP-FinalInitialStudy042011_ForViewing_OPT_000.pdf). April 22.

City of Baldwin Park. 2002. *City of Baldwin Park General Plan*. Retrieved from [http://www.baldwinpark.com/index.php?option=com\\_docman&task=cat\\_view&gid=135&Itemid=218](http://www.baldwinpark.com/index.php?option=com_docman&task=cat_view&gid=135&Itemid=218).

City of Covina. 1989. *City of Covina General Plan*.

- City of Pomona. 2007. *City of Pomona General Plan-Hearing Draft*. Draft updated February. Retrieved in August 2008 from [http://www.ci.pomona.ca.us/general\\_plan\\_update/Pomona%20General%20Plan.pdf](http://www.ci.pomona.ca.us/general_plan_update/Pomona%20General%20Plan.pdf).
- City of San Dimas. 1991. *City of San Dimas General Plan*. Retrieved from <http://www.cityofsandimas.com/pubdocs.cfm?task=detail&ID=3042>.
- City of Walnut. 1978. *City of Walnut General Plan*. Retrieved from <http://ci.walnut.ca.us/general.asp?id=202>.
- City of West Covina. 1985. *City of West Covina General Plan*.
- . 2004. Natural Hazard Mitigation Plan, Section 8: Flood. Information excerpted on April 18, 2011, from City Fire Department Web site: <http://www.westcovina.org/cityhall/fire/prepare/nhmp/8.asp>. Adopted October 19.
- DOC (State of California Department of Conservation, Division of Mines and Geology). 1997. Special Publication 117, Guidelines for Evaluating and Mitigating Seismic Hazards in California. March 13.
- . 2001. F.G. Perez, T.P. McCrink, S.S. Tan, and R.I. Wilson. *Seismic Hazard Zone Report for the San Dimas Quadrangle, Section 2, Earthquake-Induced Landslide Evaluation Report*.
- . 2007. Alquist-Priolo Earthquake Fault Zone Maps. Retrieved from [http://www.quake.ca.gov/gmaps/ap/ap\\_maps.htm](http://www.quake.ca.gov/gmaps/ap/ap_maps.htm)
- . 2010. Farmland Mapping & Monitoring Program. Retrieved from <http://www.conservation.ca.gov/dlrp/fmmp/Pages/Index.aspx>.
- DWR (California Department of Water Resources). 2004. California's Groundwater, Bulletin 118, San Gabriel Valley Groundwater Basin. February 27.
- EPA (United States Environmental Protection Agency). 2006. Publication EP420-B-06-902. *Transportation Conformity Guidance for Qualitative Hot-Spot Analyses in PM<sub>2.5</sub> and PM<sub>10</sub> Nonattainment and Maintenance Areas*. Accessed via Web site at: [www.epa.gov/air/oaqps/greenbk/](http://www.epa.gov/air/oaqps/greenbk/). March.
- Federal Emergency Management Agency. 2008. Flood Insurance Rate Maps, Los Angeles County, California and Incorporated Areas. Map Nos. 06037C1700F and 06037C1725F. September 26.
- Federal Transit Administration (FTA). 2006. *Transit Noise and Vibration Impact Assessment*. May.

- Foothill Transit. 2011. Foothill Transit Web site. Retrieved from <http://www.foothilltransit.org/> on September 19, 2011.
- Hickman, J.C. Editor. 1993. *The Jepson Manual: Higher Plants of California*. University of California Press, Berkeley, California.
- LACDPW (Los Angeles County Department of Public Works). 2011. San Gabriel River Watershed. Fact sheet found at <http://dpw.lacounty.gov/wmd/watershed/sg/>
- LARWQCB (Los Angeles Regional Water Quality Control Board). 1995. *Water Quality Control Plan, Los Angeles Region (Basin Plan)*. Approved February 23 by State Office of Administrative Law.
- . 2000. *State of the Watershed – Report on Surface Water Quality, The San Gabriel River Watershed*. June.
- LASGRWC (Los Angeles and San Gabriel Rivers Watershed Council). 2010. Online map source: [http://lasgrwc2.org/Files/map/86\\_SCMIssamplingevent\\_lores.pdf](http://lasgrwc2.org/Files/map/86_SCMIssamplingevent_lores.pdf).
- Los Angeles County. 1980. Los Angeles County General Plan. Retrieved from <http://planning.lacounty.gov/generalplan>.
- . 2008. *Los Angeles General Plan-Draft*. Draft amended in September.
- . 2011. Los Angeles County, Department of Regional Planning. General Plan 2035. Public Review Draft 4/5/11. Chapter 6: Conservation and Open Space Elements, pp. 104-105. Retrieved from [http://planning.lacounty.gov/assets/upl/project/gp\\_2035\\_part2-chapter6.pdf](http://planning.lacounty.gov/assets/upl/project/gp_2035_part2-chapter6.pdf).
- Metro (Los Angeles County Metropolitan Transportation Authority). 2004. Congestion Management Program for Los Angeles County. Adopted July 22.
- . 2006. *Bicycle Transportation Strategic Plan*. June. Retrieved from [http://metro.net/projects\\_plans/bikeway\\_planning/images/BTSP.pdf](http://metro.net/projects_plans/bikeway_planning/images/BTSP.pdf) on November 10, 2008.
- . 2007. Interstate 10 Carpool Lane from Puente Ave to Route 57. Retrieved from [http://www.metro.net/projects\\_studies/cmia/images/MI-10%20Web.pdf](http://www.metro.net/projects_studies/cmia/images/MI-10%20Web.pdf).
- . 2011. Retrieved from Los Angeles Metropolitan Transportation Authority website. [http://www.metro.net/riding\\_metro/bus\\_overview/images/190-194.pdf](http://www.metro.net/riding_metro/bus_overview/images/190-194.pdf) on September 19, 2011.
- Metrolink. 2011. Metrolink Web site. Retrieved from <http://www.metrolinktrains.com/> on September 19, 2011.

Munz, P.A. 1974. *A Flora of Southern California*. University of California Press, Berkeley, California.

National Transportation Research Board. 2000. *Highway Capacity Manual*.

OPR (Governor's Office of Planning and Research). 2008. *Technical Advisory, CEQA and Climate Change: Addressing Climate Change through California Environmental Quality Act (CEQA) Review*. June 19.

PBQ&D (Parsons Brinckerhoff Quade and Douglas). 1993. *Improvements to Interstate 10, Construction of High Occupancy Vehicle (HOV) Lanes between Puente Avenue and Citrus Avenue in the Cities of Baldwin Park and West Covina, 07-LA-10-33.4/37.5*. August.

PEAI (Paleo Environmental Associates, Inc.). 2010. *Paleontologic Resources. Tehachapi Renewable Transmission Project: Segments 4-11, Transmission Lines, Substations, and New and Replacement Facilities, Kern, Los Angeles, and San Bernardino Counties, California*. PEA Appendix Q. Accessed online at: [http://docs.cpuc.ca.gov/environ/tehachapi\\_renewables/FinalEIS/TRTP%20Final%20EIS/FEIS/body/3-7\\_Geology-Soils.pdf](http://docs.cpuc.ca.gov/environ/tehachapi_renewables/FinalEIS/TRTP%20Final%20EIS/FEIS/body/3-7_Geology-Soils.pdf). June.

SCAG (Southern California Association of Governments). 2008. *2008 Regional Transportation Plan (RTP), Making the Connections*. Accessed online at: [http://www.scag.ca.gov/rtp2008/pdfs/finalrtp/f2008RTP\\_Complete.pdf](http://www.scag.ca.gov/rtp2008/pdfs/finalrtp/f2008RTP_Complete.pdf). May.

SCAQMD (South Coast Air Quality Management District). 2000. *Multiple Air Toxics Exposure Study (MATES-II) Final Report*. March.

———. 2008. *Multiple Air Toxics Exposure Study in the South Coast Air Basin (MATES III) Final Report*. September.

State of California. 2010. Important Farmland in California 2008 Map. Department of Conservation, Division of Land Resources Protection, Farmland Mapping and Monitoring Program. December.

SWRCB (State Water Resources Control Board). 2006. 2006 CWA Section 303(d) List of Water Quality Limited Segments. p. 190.

UC Davis (University of California Davis). 1997. Transportation Project-Level Carbon Monoxide Protocol (CO Protocol). December.

USFWS (U.S. Fish and Wildlife Service). 2004. Biological Opinion, FWS-LA-2578.6.

———. 2010. Second Amendment to Biological Opinion, FWS-LA-2003.5.

- U.S. Geological Survey (USGS). 1985. Tinsley, J.C. *et al*; Evaluating Liquefaction Potential. Professional Paper in *Evaluating Earthquake Hazards in the Los Angeles Region California*.
- Western Regional Climate Center (WRCC). 2011. Retrieved from <http://www.wrcc.dri.edu/>.
- WorleyParsons. 2009a. *Initial Site Assessment Report, Route 10 HOV Lane Improvement Project, West Covina, California*. 100 South California Avenue, Assessor's Parcel Number: 8474-007-030, Contract 07A2212 EA No. 1170U1. Task Order No. 11, WorleyParsons, September 4, 2009.
- . 2009b. *Initial Site Assessment Report, Route 10 HOV Lane Improvement Project, West Covina, California*. 10 Fashion Plaza, Assessor's Parcel Number: 8474-003-081, Contract 07A2212 EA No. 1170U1. Task Order No. 11, WorleyParsons, September 2009.
- . 2009c. *Initial Site Assessment Report, Route 10 HOV Lane Improvement Project, 195 South Glendora Avenue, West Covina, California*. Assessor's Parcel Number: 8474-011-046, Contract 07A2212 EA No. 1170U1. Task Order No. 11, WorleyParsons, October 26, 2009.
- . 2009d. *Initial Site Assessment Report, Route 10 HOV Lane Improvement Project, 1900 West Garvey Avenue South, West Covina, California*. Assessor's Parcel Number: 8474-007-037, Contract 07A2212 EA No. 1170U1. Task Order No. 11, WorleyParsons, November 16, 2009.
- . 2009e. *Initial Site Assessment Report, Route 10 HOV Lane Improvement Project, 725 S. Orange Avenue, Doctors Hospital, West Covina, California*. Assessor's Parcel Number: 8474-001-012, Contract No. 07A2212. EA No 07-127221. Task Order No. 11. July 20.
- . 2010a. *Initial Site Assessment Report, Route 10 HOV Lane Improvement Project, 950 Lakes Drive, West Covina, California*. Assessor's Parcel Number: 8474-011-028, Contract 07A2212 EA No. 1170U1. Task Order No. 11, WorleyParsons, February 17, 2010.
- . 2010b. *Initial Site Assessment Report, Route 10 HOV Lane Improvement Project, 110 South California Avenue, West Covina, California*. Assessor's Parcel Number: 8474-007-031, Contract 07A2212 EA No. 1170U1. Task Order No. 11, WorleyParsons, February 17, 2010.

**CHAPTER 7**  
**COMMENTS AND COORDINATION**



## **7.0 Comments and Coordination**

CEQA Guidelines (14 CCR, Sections 15082-15083) recommend that federal, state, and local lead agencies use a public scoping process to help identify the various issues to be addressed in the environmental document. Scoping allows public agencies and the general public to learn about the proposed project and to provide suggestions regarding alternatives and the types of impacts to be evaluated.

This chapter summarizes the results of the affected jurisdictions and Caltrans' efforts to fully identify, address, and resolve project-related issues through early and continuing public involvement and agency coordination.

### **7.1 Initiation of Studies Letters**

#### **7.1.1 1993 Initiation of Studies Letters and Scoping**

Initiation of studies letters were distributed by Caltrans, District 7 to agencies, organizations, utilities and interested persons on April 7, 1993, describing a range of alternatives that would be considered for the project study area on Interstate Route 10. Responses to the 1993 initiation of studies letters were received from a total of five agencies and one utility. Issues raised in those response letters were addressed in a 2003 Initial Study/Environmental Assessment (IS/EA) for the proposed I-10 High Occupancy Vehicle (HOV) Lane project. Copies of the 1993 initiation of studies letters, distribution list and responses to the initiation of studies letters are on file with Caltrans.

A scoping notice for the proposed I-10 HOV Lane project between Baldwin Avenue and the State Route 57/State Route 71/Interstate Route 210 (SR 57/SR 71/I-210) Interchange was published in six area newspapers on June 17 and June 24, 1993. Responses to the scoping notice were received from two cities and one utility agency. Issues raised in those response letters are addressed in the proposed I-10 HOV lanes project. The scoping newspaper notices and the responses to that notice are on file at Caltrans.

#### **7.1.2 2001 Re-Initiation of Studies Letters**

On December 17, 2001, Caltrans distributed re-initiation of studies letters for the proposed I-10 HOV lane project to 27 elected officials. On December 18, 2001, Caltrans distributed re-initiation of studies letters to 58 public agencies (federal, state, regional and local) and other interested parties. Copies of these re-initiation of studies letters are provided in the 2003 IS/EA.

A notice for the re-initiation of studies for the proposed I-10 HOV lane project between Baldwin Avenue and the SR 57/SR 71/I-210 Interchange was published in the following area newspapers on January 24, 2002: San Gabriel Valley Tribune; Los Angeles Times-San

Gabriel Valley edition; Inland Valley Daily Bulletin; La Opinión (Spanish language); Los Angeles Sentinel; and Mundo LA (Spanish language).

Responses to the re-initiation of studies letters and the newspaper notices were received from:

- Foothill Transit (December 28, 2002).
- City of West Covina Public Works Department (January 22, 2002).
- West Covina Redevelopment Agency (January 17, 2002).

## **7.2 Consultation with Local Jurisdictions**

During the preparation of the detailed engineering studies for the proposed HOV lanes, Caltrans conducted extensive coordination with affected local jurisdictions. Meetings were held with the cities of Baldwin Park on March 28, 2001, and West Covina on April 30, 2001 and March 27, 2002. These meetings were held to discuss the various alternatives; potential effects of the alternatives on local frontage roads, parking facilities, businesses and residences; design modifications that would avoid or reduce impacts associated with HOV lanes; and other issues of concern to these local jurisdictions.

As project design details have been modified, over time, including soundwall placement, ongoing consultation with the affected local jurisdictions has been conducted.

## **7.3 Distribution of the Draft Environmental Document (IS/EA)**

The Federal Highway Administration (FHWA) and Caltrans circulated the Draft IS/EA for public review and comment between October 18, 2002 and December 6, 2002.

### **7.3.1 Public Comment Period for the 2003 IS/EA**

Caltrans published a Notice of Public Hearing on October 22, 2002 and November 7, 2002, which indicated that the IS/EA was available for public review and comment. The Notice was published in the following papers:

- San Gabriel Valley Tribune (10/22/02 and 11/7/02)
- Pasadena Star News (10/22/02 and 11/7/02)
- Whittier Daily News (10/22/02 and 11/7/02)
- Los Angeles Times-San Gabriel Valley edition (11/7/02)
- Inland Valley Daily Bulletin (10/22/02 and 11/7/02)
- La Opinión (10/22/02 and 11/7/02)

Copies of the Draft IS/EA were available for review at Caltrans' District 7 Office located at 120 South Spring Street, Los Angeles, CA 90012, and at the following community facilities:

- Baldwin Park Library, 4181 Baldwin Park Boulevard
- West Covina Library, 1601 West Covina Parkway
- Covina Public Library, 234 North Second Avenue
- San Dimas Library, 145 North Walnut Avenue
- Pomona Library, 625 South Garey Avenue

In addition, the Draft ED was also available for review online during the public review period. Copies of the letters and Caltrans' responses can be found in the 2003 IS/EA, available for review at Caltrans' District 7 Office.

#### **7.4 Public Hearing**

FHWA and Caltrans conducted a public hearing on the 2003 IS/EA on November 21, 2002 from 6:00 PM to 8:00 PM in the Community Room at West Covina City Hall, 1444 West Garvey Avenue, West Covina, CA 91790. As indicated above, a Notice of Public Hearing was published in area newspapers and was sent to elected officials, agencies, and interested individuals.

Meeting attendees' comments and Caltrans' responses are included under separate cover in the Official Transcripts from the hearing found in the Record of Public Hearing. A total of seven comment cards with written comments only were submitted at the public hearing. The comments/questions provided on the comment cards and Caltrans' responses are included in 2003 IS/EA.

#### **7.5 Distribution of the Draft Environmental Impact Report (EIR)**

Caltrans issued a Notice of Preparation for a Re-Evaluation document for Segments 2 and 3 due to project design changes that had occurred since the original MND/FONSI for all three segments of the project was issued in 2003. This Notice of Preparation can be found in Appendix B.

This page intentionally left blank.

**CHAPTER 8**  
**DISTRIBUTION LIST**



## 8.0 Distribution List

<b>Elected Officials</b>		
Assembly Districts 57 Roger Hernandez 100 N Barranca St, Ste 895 West Covina, CA 91791	Assembly Districts 61 Norma J. Torres 13160 7th Street Chino, CA 91710	Assembly District 60 Curt Hagman 13920 City Center Drive, #260 Chino Hills, CA 91709
Congressional Districts 38 Grace F. Napolitano 11627 East Telegraph Road, #100 Santa Fe Springs, CA 90670	Congressional Districts 26 David Dreier 510 East Foothill Boulevard Suite 201 San Dimas, CA 91773	Senate Districts 24 Edward Hernandez 100 S. Vincent, Ste. 401 West Covina, CA 91790
Senate Districts 29 Bob Huff 2605 E. Foothill Blvd., #A Glendora, CA 91740	U.S. Senators Dianne Feinstein 11111 Santa Monica Boulevard, Suite 915 Los Angeles, CA 90025	U.S. Senators Barbara Boxer 312 N. Spring Street, Suite 1748 Los Angeles, CA 90012
City of Walnut Mayor Nancy Tragarz City of Walnut 21201 La Puente Road P.O. Box 682 Walnut, CA 91789	City of Walnut City Council City of Walnut 21201 La Puente Road P.O. Box 682 Walnut, CA 91789	City of San Dimas Mayor Curtis W. Morris City of San Dimas 245 East Bonita Avenue San Dimas, CA 91773
City of San Dimas City Council City of San Dimas 245 East Bonita Avenue San Dimas, CA 91773	City of Pomona Mayor Elliott Rothman City of Pomona 505 S Garey Ave Pomona, CA 91766	City of Pomona City Council City of Pomona 505 S Garey Ave Pomona, CA 91766
City of West Covina Mayor Steve Herfert City of West Covina 1444 West Garvey Avenue West Covina, CA 91790	City of West Covina City Council City of West Covina 1444 West Garvey Avenue West Covina, CA 91790	City of Covina Mayor John King City of Covina 125 E. College Steet Covina, CA 91723
City of Covina City Council City of Covina 125 E. College Steet Covina, CA 91723	City of Baldwin Park Mayor Manuel Lozano City of Baldwin Park 14403 East Pacific Avenue Baldwin Park, CA 91706	City of Baldwin Park City Council City of Baldwin Park 14403 East Pacific Avenue Baldwin Park, CA 91706
<b>Agencies</b>		
Environmental Protection Agency Office of Federal Activities (A104) 401 M Street SW Washington, DC 20460	District Commander U.S. Army Corps of Engineers Los Angeles District Attn: Public Affairs office, Suite 1525 911 Wilshire Boulevard Los Angeles, CA 90012	Director Office of Environmental Affairs Department of Health and Human Services 200 Independence Avenue SW, Room 537F Washington, DC 20201
Environmental Clearance Officer U.S. Department of Housing & Urban Development 451 7th Street S.W. Washington, D.C. 20410	Center for Disease Control Center for Environmental Health & Injury Control Special Programs Mail Stop F-29 1600 Clifton Road Atlanta, GA 30333	Director, Office of Environmental Compliance U.S. Department of Energy 1000 Independence Avenue, SW, Room 4G-064 Washington, DC 20585

Office of Community and Planning Development Department of Housing and Urban Development 611 West 6th Street, Suite 800 Los Angeles, CA 90017	Office of Planning and Research State Clearinghouse P.O. Box 3044 Sacramento, CA 95812-3044	Director, Office of Environmental Affairs U.S. Department of the Interior Main Interior Building, MS 2340 1849 C Street, NW Washington, DC 20240 Executive Officer
California Wildlife Conservation Board 1416 Ninth Street Sacramento, CA 95814	Public Utilities Commission 320 West 4th Street, Suite 500 Los Angeles, CA 90013	California Highway Patrol, Southern Division 411 North Central Avenue, Suite 410 Glendale, CA 91203-2020
State Historic Preservation Officer Office of Historic Preservation Department of Parks and Recreation P.O. Box 942896 Sacramento, CA 94296-0001	Metropolitan Transportation Authority One Gateway Plaza, MS 99-22-4 Los Angeles, CA 90012-2952	Los Angeles Regional Water Quality Control Board 320 West 4th Street, Suite 200 Los Angeles, CA 90013
South Coast Air Quality Management District 21865 East Copley Drive Diamond Bar, CA 91765	Mr. Mark A. Pisano, Executive Director Southern California Association of Governments 818 West Seventh Street, 12th Floor Los Angeles, CA 90017	Los Angeles County Department of Public Works 125 South Baldwin Avenue Arcadia, CA 91007
Baldwin Park Unified School District 3699 North Holly Avenue Baldwin Park, CA 91706	Covina Valley Unified School District 519 East Badillo Road Covina, CA 91723	Foothill Transit District 100 North Barranca Avenue, Suite 100 West Covina, CA 91791
California Wildlife Federation P.O. Box 1527 Sacramento, CA 95812	Sierra Club Los Angeles Chapter 3435 Wilshire Boulevard, Suite 320 Los Angeles, CA 90010-1904	Automobile Club of Southern California 3333 Fairview Road Costa Mesa, CA 92626
Director, Long Range Planning University of California 300 Lakeside Drive 12th floor Oakland, CA 94612	Los Angeles County Fire Department 1320 North Eastern Avenue Los Angeles, CA 90063	State Clearinghouse P.O. Box 3044 Sacramento, CA 95812-3044
Department of Transportation Division of Environmental Analysis Attn: Caltrans CTC Liaison 1120 N Street, MS 27 Sacramento, CA 95814	United States Fish and Wildlife Service 2493 Portola Rd, Suite B Ventura, CA 93003	Federal Transit Administration 201 Mission St, Suite 1650 San Francisco, CA 94105-1839
Federal Aviation Administration 15000 Aviation Blvd Lawndale, CA 90260	United States Department of Agriculture 1400 Independence Ave, SW Washington DC 20250	Federal Emergency Management Agency 1111 Broadway, Suite 1200 Oakland, CA 94607-4052
California Department of Conservation 801 K Street, MS 24-01 Sacramento, CA 95814	California Air Resources Board 200 Oceanate, 10th floor Long Beach, CA 91765-4182	California Integrated Waste Management Board 1001 I Street, PO Box 4025 Sacramento, CA 95814
California Coastal Commission 200 Oceanate, 10th floor Long Beach, CA 90802	State Water Resources Control Board 1001 I Street Sacramento, CA 95814	California Native American Heritage Commission 915 Capitol Mall Sacramento, CA 95814

California Department of Water Resources 1416 9th Street Sacramento, CA 95814	California Public Utilities Commission 505 Van Ness Ave. San Francisco, CA 94102	Governor's Office of Emergency Services 3650 Schreiver Ave. Mather, CA 95655
California Department of Toxic Substances Control 1449 W Temple St Los Angeles, CA 90026-5698	CRA/LA 354 S Spring St, Suite 800 Los Angeles, CA 90013	City of Los Angeles Department of Transportation 100 S Main St, 10th Floor Los Angeles, CA 90012
LAFCO for Los Angeles County 700 N Central Blvd., Ste 445 Glendale, CA 91203	Metropolitan Water District PO Box 54153 Los Angeles, CA 90054	Los Angeles Department of City Planning 200 N Spring St Los Angeles CA 90012
Los Angeles County Department of Public Works 900 S Fremont Ave Alhambra, CA 91803	County of Los Angeles Parks/Recreation 1200 W Seventh St Suite 700 Los Angeles, CA 90017	Los Angeles County Dept of Public Health 313 N Figueroa St, Room 806 Los Angeles, CA 90012
Los Angeles County Dept of Regional Planning Hall of Records 13th Floor, 320 W Temple St Los Angeles, CA 90012	Los Angeles County Sanitation District PO Box 4998 Whittier, CA 90607-4998	Los Angeles Department of Water and Power PO Box 51111 Los Angeles, CA 90051-0100
Los Angeles County Sheriff's Department 4700 Ramona Blvd Monterey Park, CA 91754	Los Angeles County Unified School District PO Box 3307 Los Angeles, CA 90051	Southern California Edison PO Box 800 Rosemead, CA 91770
Los Angeles County Bicycle Coalition 634 S Spring St, Suite 821 Los Angeles, CA 90014	U.S. Department of Transportation Federal Highway Administration 1200 New Jersey Ave SE, Washington, DC 20590	United States Forest Service 1400 Independence Ave., SW Washington, D.C. 20250-0003
NOAA National Marine Fisheries Service 501 West Ocean Blvd. Long Beach, CA 90802-4213	National Park Service Marilyn Sutton 401 West Hillcrest Drive Thousand Oaks, CA 91360	Office of Planning and Research 1400 Tenth Street Sacramento, California 95814
President J. Michael Ortiz CA State Polytechnic University, Pomona 3801 West Temple Ave. Pomona, CA 91768		

**Interested Parties**

California Native Plant Society 1722 J Street, Suite 17 Sacramento, CA 95814	Greyhound Lines 5110 North Dallas Parkway Dallas, TX 75248	Jim Louder 3 Williamsburg Lane Rolling Hills, CA 90274
Francis Park Park & Velayos LLP 801 South Figueroa Street, Suite 350 Los Angeles, California 90017	Ginny Ray PO Box 75 West Covina, CA 91793	Olga Fernandez 861 Forest Hills Dr. Covina, CA 91724
Sheri Bonstelle Jeffer Mangles Co. 1900 Avenue of the Stars, 7th Floor Los Angeles, CA 90067	Michael Nytzen Park & Velayos LLP 801 South Figueroa Street, Suite 350 Los Angeles, California 90017	Mr. Gary Shepherd 514 38th St. Newport Beach, CA 92663

Luis Batres 16140 Meadowside La Puente, CA 91744	Joe Battaglia 224 S. Glendora Ave., Suite B2 Glendora, CA 91741	David P. Waite Jeffer Mangles Co. 1900 Avenue of the Stars, 7th Floor Los Angeles, CA 90067
--	---	---

**CHAPTER 9**  
**LIST OF PREPARERS**



## 9.0 List of Preparers

### 9.1 Lead Agency Staff

#### California Department of Transportation

Gary Iverson, Senior Environmental Planner

Document Coordinator and  
Reviewer

Charlotte Kay, Senior Environmental Planner

Document Coordinator and  
Reviewer

### 9.2 Report Preparers

#### Parsons Transportation Group, Inc.

Gary Petersen, Senior Project Manager

Environmental Project Director,  
technical reviewer

Dan Conaty, Principal Environmental Planner

Document Coordinator, Reviewer,  
Author of Agricultural, Traffic and  
Hydrology Sections

John Moeur, Principal Environmental Planner

Author of Biology Section

Carrie Chasteen, Senior Architectural Historian

Author of Cultural Resources  
Section

Angela Schnapp, Senior Environmental Planner

Author of Hazardous Waste,  
Geology, Noise, and Air Quality  
Sections

Leslie Provenzano, Environmental Planner

Author of Visual, Public Services,  
Land Use and Parks Sections

---

This page intentionally left blank.

# **APPENDICES**



## Appendix A CEQA Environmental Checklist

### CEQA Environmental Checklist

07-LA-10

33.2/42.4

119341, 1170U1

Dist.-Co.-Rte.

P.M/P.M.

E.A.

This checklist identifies physical, biological, social, and economic factors that might be affected by the proposed project. In many cases, background studies performed in connection with the projects indicate no impacts. A NO IMPACT answer in the last column reflects this determination. Where there is a need for clarifying discussion, the discussion is included either following the applicable section of the checklist or is within the body of the environmental document itself. The words "significant" and "significance" used throughout the following checklist are related to CEQA, not NEPA, impacts. The questions in this form are intended to encourage the thoughtful assessment of impacts and do not represent thresholds of significance.

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
<b>I. AESTHETICS:</b> Would the project:				
a) Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

a. **No Impact.** Because of the urban nature of the surrounding area, scenic vistas are not present. In addition, obstruction of views due to numerous existing soundwall barriers exist; therefore, the proposed 'Add One High-Occupancy Vehicle Lane in Each Direction on the San Bernardino Freeway (Interstate 10) from Puente Avenue to State Routes 57/71 in Los Angeles County' Project (henceforth referred to as the 'I-10 HOV Lane Project' or 'proposed project') would not result in an adverse effect on a scenic vista. No mitigation is required.

b. **No Impact.** For the reasons stated above, the proposed project would not degrade scenic resources. In addition, I-10 within the proposed project area is not designed as a state scenic highway. No mitigation is required.

c. **Less Than Significant Impact with Mitigation.** The proposed I-10 HOV Lane Project generally would neither substantially alter existing viewsheds in the study area nor change the overall composition of the visual environment. With the exception of the Kellogg Hill viewshed, views from surrounding land uses are not generally oriented toward I-10. There are no designated scenic corridors within the project limits. Existing desirable views of the distant San Gabriel Mountains from the motorist's perspective would mostly remain unobstructed, even with the implementation of soundwalls and retaining walls.

Foreground views of construction activities in the median and at the shoulders of I-10 would be visible by motorists and from adjacent land uses such as the Forest Lawn Memorial Park Cemetery and Kellogg House mansion parking area. Use of

barriers to screen construction activities would be recommended.

The proposed project would result in a permanent change in the visual setting where the HOV lanes can be viewed from the foreground and the middle-ground distance zones in the vicinity of the California State Polytechnic University Pomona (Cal Poly Pomona) campus. Retaining walls proposed to be constructed on the south side of I-10, between the University House parking lot and the Kellogg Drive off-ramp, would be visible from the Cal Poly Pomona campus. While mature vegetation exists between these viewer groups and the retaining walls, this change in the visual setting could constitute an impact to some observers. Mitigation in the form of landscaping would lessen these impacts to a level of less than significant.

The proposed project would include landscaping in the remaining available public right-of-way (ROW), consistent with the California Department of Transportation's (Department's) existing procedures and standards regarding plant materials and placement. Affected local jurisdictions would be invited to work with the Department on the landscaping plans associated with construction of the HOV lanes.

The Department has an existing program to collect litter, replace landscaping, and clean graffiti within the Department's ROW, which would continue during operation of the HOV lanes; therefore, the proposed project would not result in substantial adverse aesthetic impacts related to litter, degraded landscaping, and graffiti.

d. **No Impact.** Existing light and glare sources in the I-10 project study area include lighting on the I-10 mainline and ramps, on area streets, in parking areas, and around existing land uses. Most of the study area is developed with urban uses, and there are no existing substantial adverse sources of light and glare. Existing shadow sources include structures such as residences, businesses, walls, and overcrossings. The existing visual quality in the study area is not high, and there are no sensitive land uses that would be adversely affected by light, glare, and/or shadow associated with the proposed project. The proposed project would not introduce changes to this condition. No mitigation is required.

<b>II. AGRICULTURE AND FOREST RESOURCES:</b> In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment Project; and the forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:	<b>Potentially Significant Impact</b>	<b>Less Than Significant with Mitigation</b>	<b>Less Than Significant Impact</b>	<b>No Impact</b>
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Result in the loss of forest land or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

a. **No Impact.** Based on a review of the Farmland Mapping and Monitoring Program of the California Resources Agency, there are no Prime Farmland, Unique Farmland, or Farmland of Statewide Importance within the proposed project study area. No mitigation is required.

b. **Less Than Significant Impact.** Unincorporated land south of I-10 from approximately the intersection of East Garvey Avenue South and Palomino Drive (the western boundary of Forest Lawn Memorial Park Cemetery) to the SR 57/SR 71 interchange is zoned for agricultural use. An approximate 0.6-mile stretch of unincorporated land on the north side of I-10 east of the city of Covina boundary is also zoned for agricultural use (A-1-40000), but it is actually being used for large-lot residential purposes. Williamson Act contracts are not attached to these land parcels. Soundwalls are recommended along some of these areas. Most of the soundwalls would be within Caltrans ROW; however, some land may be acquired to accommodate the soundwalls. Because the land in question is not in active agricultural production but is zoned for such use, a less than significant impact is judged to exist. No mitigation is required.

c-d. **No Impact.** The subject I-10 corridor is within an urban area with some open space/agricultural zoning associated with Forest Lawn Memorial Park Cemetery and the Cal Poly Pomona campus. No forest land, timberland, or timberland-zoned Timberland Production areas are located within the proposed project vicinity. No mitigation is required.

e. **No Impact.** No land used for farming or forestry purposes would be affected by the proposed project. No mitigation is required.

III. AIR QUALITY: Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Create objectionable odors affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

a. **No impact.** To conform to state and federal air quality plans, a project must be included in approved transportation plans and programs. The proposed project is included in the Southern California Associated Government's 2008 Regional Transportation Plan (RTP) for which the Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA) issued a transportation and air quality conformity determination on June 5, 2008, and in the 2011 Federal Transportation Improvement Program (TIP), which was approved by FHWA and FTA on September 2, 2010; therefore, the proposed project would be in conformance with the Clean Air Act. Moreover, the project would add capacity intended for use by HOVs, which is an objective of both the regional and federal plans. A beneficial effect would therefore apply to the proposed project.

b. **Less than Significant Impact.** Short-term air quality impacts are expected during construction due to motor vehicle and construction equipment emissions. With the application of various required controls to be incorporated into the proposed project, these temporary air quality impacts are considered less than significant.

When operational, the proposed project is intended to reduce congestion and increase travel speed on I-10. It is anticipated that the proposed project would result in a slight decrease in the amount of some criteria pollutants when compared to the No Project Alternative; therefore, the proposed project should result in an overall beneficial effect, albeit small, on air pollutant emissions.

c. **Less than Significant Impact** See response to Item III.a. The South Coast Air Basin (SCAB) is designated as nonattainment for ozone (O<sub>3</sub>), particulate matter of 2.5 microns or smaller in diameter (PM<sub>2.5</sub>), and particulate matter of ten

microns or smaller in diameter (PM<sub>10</sub>). Past project-specific air emission studies have shown that the proposed project would be expected to result in minor changes to area emissions of O<sub>3</sub> precursors and particulate matter because it would not increase traffic volumes, but rather should reduce congestion and improve traffic flow. This result is consistent with the conclusions of other particulate matter emission studies prepared for HOV lane projects in the SCAB. Operation of the proposed project would comply with all applicable air quality plans and be expected to improve traffic circulation in the area, which would result in improved air quality; therefore, project contributions to cumulative air quality impacts would not be considered cumulatively considerable.

d. **Less than Significant Impact.** During construction, adjacent areas would be exposed to pollutants from grading and construction equipment. With the application of various required emission control measures to be incorporated into the proposed project, these temporary air quality impacts are considered less than significant.

Once operational, the proposed project should result in a reduction of carbon monoxide (CO) levels at all receptors, compared to the No Project Alternative. No mitigation is required.

The proposed project meets the four conditions of the Level Two Qualitative Screening of Transportation Project CO Protocol for projects, as follows:

Condition (a): Does the build alternative have at least 2 percent more traffic operating in cold start mode than the No Action (No Project) Alternative?

No, compared with the No Project Alternative, the Proposed Project Alternative would not generate a 2 percent or greater increase in the number of vehicles operating in cold start mode.

Condition (b): Does the build alternative significantly increase traffic volumes above the No Action (No Project) Alternative volumes?

There would not be a significant increase in traffic volumes under the proposed project compared to the No Action (No Project) Alternative. The projected traffic volumes are the same for both alternatives.

Condition (c): Does the build (proposed project) alternative improve traffic flow?

Yes, the proposed project improves traffic flow and reduces traffic delay, compared to the No Action (No Project) Alternative.

Condition (d): Does the build (proposed project) alternative move traffic closer to a receptor site?

No, traffic will not be move appreciably closer to receptor sites compared to the No Action (No Project) Alternative.

Because all four conditions are satisfied, the proposed project does not require a quantitative CO analysis. The proposed project would not cause or contribute to new localized CO violations or increase the severity or frequency of existing violations in the area affected by the project. Only project-level CO impacts were considered because regional air quality issues have already been addressed in the RTP and the TIP analyses.

e. **Less than Significant Impact.** There would be a short-term increase in intermittent diesel fume odors during construction in the vicinity of sensitive receptors. These odors would be temporary and should dissipate rapidly. Operation of the proposed project would not result in significant impacts related to the creation of odors because of the following considerations: (1) project would not increase diesel truck traffic; (2) travel lanes would not be appreciably closer to receptors; and (3) project is expected to reduce congestion conditions. No mitigation is required.

IV. BIOLOGICAL RESOURCES: Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or US Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

- |  |                          |                          |                                     |                                     |
|--|--------------------------|--------------------------|-------------------------------------|-------------------------------------|
| c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?                                   | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |

a. **Less than Significant Impact.** The area within the project ROW is not known or expected to support any unique, threatened, or endangered species of plants, animals, or their critical habitats. One avian species on the California Watch List, the Cooper's hawk (*Accipiter cooperii*), was observed in the study area. The loggerhead shrike, a California Species of Special Concern, may occur in the project area, but it is not expected to nest or forage in the I-10 ROW because of vehicular traffic disturbances.

The California Native Plant Society (CNPS) has identified the following sensitive plants that may occur within the project study area: Brand's phacelia (*Phacelia stellar*), rayless ragwort (*Senecio aphanactis*), many-stemmed dudleya (*Dudleya cymosa*), Plummer's mariposa lily (*Calochortus plummerae*), and intermediate Mariposa lily (*Calochortus wedii* var. *intermedius*). Brand's phacelia, rayless ragwort, and intermediate mariposa lily were addressed in a September 2000 memorandum (Caron, 2000) as not being present in the project area. Many-stemmed dudleya and Plummer's mariposa lily were determined not present during September 2000 and September/November 2002 surveys as addressed in a letter to the U.S. Fish and Wildlife Service (USFWS). The absence of these sensitive plant species is primarily attributed to the lack of suitable habitat, largely due to the presence of dominant intrusive, non-native annual grass species; therefore, the proposed I-10 HOV Lane Project would not result in an effect on special-interest or status plant species or their habitats. No mitigation is required.

b. **No Impact.** The extant embankments on Kellogg Hill do not afford suitable conditions for any of the other plant or animal species. The proposed construction of HOV lanes along I-10 would cause no direct adverse effect to any of the 10 species known to occur in the species-specific habitat on the south side of the San Jose Hills, which are within 0.5-mile of the freeway alignment. The proposed project would not result in impacts to riparian habitat or other sensitive biological communities within Forest Lawn Memorial Park Cemetery or Frank G. Bonelli Regional Park; therefore, the proposed project would not result in any impacts related to conservation plans. No mitigation is required.

c. **No Impact.** There are no designated jurisdictional wetlands adjacent to or in the immediate vicinity of the project section of I-10. Walnut Creek is a concrete-lined flood control channel that crosses under I-10 and does not support any riparian vegetation. To avoid riparian vegetation, project construction activities in the vicinity of the unnamed drainage west of Forest Lawn Memorial Park Cemetery would be restricted to the area immediately adjacent to the existing freeway lanes, within the existing ROW; therefore, the proposed project would not result in adverse impacts on wetlands or riparian vegetation. No mitigation is required.

d. **Less than Significant Impact.** The project area consists of an existing freeway located within a developed urbanized area. There is one potentially functioning wildlife corridor that exists south of I-10 and west of the Forest Lawn Memorial Park Cemetery. The corridor consists of riparian woodland along an unnamed drainage that passes under the freeway; however, this corridor is limited due to the existence of the freeway and the lack of open space north of the freeway. Wildlife movement is expected to occur at a local level in the open space to the south of I-10. As such, the proposed project would not interfere substantially with any migratory wildlife corridor or wildlife nursery site.

e. **No Impact.** Based on review of the General Plans for the local jurisdictions in the vicinity of the project corridor, the proposed project would not conflict with any local policies or ordinances protecting biological resources.

f. **No Impact.** Based on review of the General Plans for the local jurisdictions in the vicinity of the proposed project alignment, as well as USFWS and California Department of Fish and Game (CDFG) maps and plans, there are no existing habitat conservation plans, natural community conservation plans or other approved local, regional, or state habitat plans (HCPs)

applicable to this area. USFWS recently completed consultation with the United States Army Corps of Engineers (USACE) under Section 7 of the federal Endangered Species Act relative to incidental take of the coastal California gnatcatcher (*Poliophtila californica californica*) at Forest Lawn Memorial Park Cemetery and the identification of Habitat Preservation Areas (HPAs) on that property. The HPA at Forest Lawn Memorial Park Cemetery is south of, and some distance from, I-10. The proposed project would require the acquisition of only a small sliver of ROW from the Forest Lawn property. Based on a conversation with USFWS (Kevin Clark, July 10, 2002), the area proposed for acquisition is some distance from the boundary of the HPA and would not result in any impacts to the gnatcatcher or the HPA.

V. CULTURAL RESOURCES: Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Disturb any human remains, including those interred outside of formal cemeteries?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

a. **Less Than Significant Impact.** A total of 442 properties (constructed in or before 1949) located within the Area of Potential Effects (APE) were evaluated for inclusion in the National Register of Historic Places (NRHP) and/or the California Register of Historical Resources (CRHR), and no affected properties were determined eligible for listing in the NRHP and/or the CRHR in the 1994 Historic Property Survey Report (HPSR) and the 2002 Supplemental HPSR. The W.K. Kellogg Arabian Horse Ranch (Ranch), located within the Cal Poly Pomona campus, was determined to be eligible for inclusion in the NRHP; however, the area proposed for acquisition is outside the area defined as the NRHP-eligible Ranch. The proposed project would require a minimal sliver acquisition of property from the Cal Poly Pomona campus and was evaluated for potential impacts to the Ranch. The nearest features of the NRHP-eligible Ranch to I-10 are the two Covina gate posts north of the Ranch (the primary location of the significant features of the NRHP-eligible property) and south of I-10. That evaluation found that project implementation would not adversely affect the Ranch because the gate posts would be fully screened from I-10 by mature landscaping. This finding received concurrence from the State Historic Preservation Office (SHPO) on March 13, 1995; therefore, no mitigation is necessary.

In a letter dated September 6, 2002, the SHPO further concurred that no additional buildings and/or structures identified in the Supplemental HPSR were eligible for inclusion on the NRHP and/or the CRHR, and that the proposed project would not result in an adverse effect/substantial adverse change to a historic property/historical resource; therefore, no mitigation is necessary.

b. **Less Than Significant Impact with Mitigation.** No recorded prehistoric or historical archaeological sites were identified within the APE; therefore, the proposed I-10 HOV Lane Project would not result in adverse impacts/substantial adverse changes to known prehistoric or historical archaeological sites. If subsurface cultural resources are discovered during earth-moving activities, it is Department policy to discontinue work in the area of the find until a qualified archaeologist can evaluate the discovery. Mitigation of the discovered cultural resources must be conducted in accordance with the requirements outlined in the CEQA Guidelines, Section 15126.4(b), 'Mitigation Measures Related to Impacts on Historic Resources'. No further mitigation is required.

c. **No Impact.** It is not expected that native soils would be encountered during construction because the project site is located within a corridor that was extensively graded by past construction of the freeway, municipal streets, and other urban developments.

d. **Less Than Significant Impact.** Because the proposed project site was previously disturbed by urban development, construction would not be expected to affect human remains. No human remains are known to exist in the project location, nor is there past evidence of use as human burial grounds. Steps listed in the CEQA Guidelines Section 15064.5(e) will be followed if human remains are discovered during earth-moving construction activities. This includes requiring the contractor to stop work and contact the proper authorities (i.e., the Los Angeles County Coroner) should any previously unknown human remains be discovered. No further study of this issue is required.

VI. GEOLOGY AND SOILS: Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ii) Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
iii) Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iv) Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

a (i, ii, iv). **Less Than Significant Impact.** The project study area is in a seismically active area potentially influenced by several known active faults. While the San Jose Fault crosses the project limits in the vicinity of PM 42.4, the freeway does not traverse an Alquist-Priolo zone. Potential seismic effects that could affect the proposed I-10 HOV Lane Project include ground shaking, liquefaction, seismic settlement, and slope failure. Ground shaking during an earthquake is considered the primary risk of potential future structural damage to I-10 and the proposed project. The potential impacts associated with ground shaking would vary greatly, depending on the fault on which the earthquake occurs, the distance of the earthquake epicenter from I-10, and the magnitude and the duration of the earthquake episode.

The Puente Formation at Kellogg Hill has historically experienced landslides caused by weakness along the contorted bedding planes. Several slides have occurred within this area of I-10. Retaining walls are recommended to be included in the project design at locations where ROW constraints would not allow slopes to be cut parallel to the existing slope ratios. The proposed action may include other design features where determined necessary to minimize the potential for losses due to potential future slope failure activity.

Seismic settlement occurs when strong ground shaking allows sediment particles to become more tightly spaced, thereby reducing existing pore space. The soils in the project study area are not particularly susceptible to settlement. Standard Department final design and construction techniques include measures to address soil stabilization and minimize the potential for settlement to a less than significant level.

a (iii). **Less than Significant Impact.** Liquefaction occurs when loose soils lose their shear strength and behave as a liquid when subjected to strong, sustained ground shaking during an earthquake. Based on a 1985 regional study by the United States Geological Survey, the relative susceptibility of the I-10 project study area to liquefaction is considered to be low to very low; therefore, the proposed project would not likely be affected by liquefaction during an earthquake. No mitigation is

required.

b. **Less than Significant Impact.** The *Caltrans Highway Design Manual* requires the design of modified highways to direct storm and landscaping runoff to storm drains and to avoid unnecessary flow of water over unpaved and nonlandscaped areas. During construction, best management practices (BMPs) would be employed to minimize erosion to the maximum extent practicable; therefore, the proposed project would result in less-than-significant impacts related to erosion. No mitigation is required.

c. **Less Than Significant Impact.** See response to VI.a.

d. **No Impact.** Soils containing high clay content often exhibit a relatively high potential to expand when saturated and contract when dried out. This shrink/swell movement can adversely affect building foundations, often causing them to crack or shift, with resulting damage to the buildings they support. The soils at the project site are situated on Holocene Alluvium materials consisting of unconsolidated gravel, sand, silt, and clay of various lithologies. Portions of the project would also encroach on rocks of Tertiary age from the Puente Formation which consist of thinly bedded olive gray to dark gray diatomaceous and tuffaceous shale and siltstone with interbedded feldspathic sandstone. These soils do not have a high clay content that would cause adverse effects to building foundations.

e. **No Impact.** Project implementation would not require the use of septic tanks or alternative wastewater disposal systems. No impacts associated with use of a septic system would occur.

**VII. GREENHOUSE GAS EMISSIONS:** Would the project:

a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	An assessment of the greenhouse gas emissions and climate change is included in the body of the environmental document. While Caltrans has included this good faith effort to provide the public and decision makers as much information as possible about the project, it is Caltrans' determination that in the absence of further regulatory or scientific information related to greenhouse gas emissions and CEQA significance, it is too speculative to make a significance determination regarding the project's direct and indirect impact with respect to climate change. Caltrans does remain firmly committed to implementing measures to help reduce the potential effects of the project. These measures are outlined in the body of the environmental document.
b) Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	

**VIII. HAZARDS AND HAZARDOUS MATERIALS:** Would the project:

	<b>Potentially Significant Impact</b>	<b>Less Than Significant with Mitigation</b>	<b>Less Than Significant Impact</b>	<b>No Impact</b>
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25-mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- |  |                          |                          |                                     |                                     |
|--|--------------------------|--------------------------|-------------------------------------|-------------------------------------|
| e) For a project located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?  | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| h) Expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?  | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |

a. **No Impact.** As with current conditions, vehicles carrying hazardous materials may use I-10 and the SR 57/SR 71 interchange as part of a routine transport route. While the proposed project involves improvement to an existing freeway, it would not result in increased traffic or increased use of the freeway or interchange specifically for the routine transport, use, and disposal of hazardous materials; therefore, the proposed project would not create a significant hazard related to the routine transport, use, and disposal of hazardous materials. No impacts are anticipated with the implementation of the proposed project.

b. **Less Than Significant with Mitigation.** There is a slight potential that previously unknown hazardous materials or underground storage tanks (USTs) would be uncovered during construction. Implementation of the Department's standard construction procedures would substantially reduce the potential impacts on construction workers and the public due to discovery or disturbance of hazardous materials and USTs during construction.

The proposed I-10 HOV Lane Project would require the acquisition of ROW that may have been contaminated with hazardous materials based on existing and/or past uses, and that could be disturbed during construction. Required remediation of existing hazardous materials contamination would be addressed during the property acquisition phase and would be conducted consistent with all existing federal, state, and local regulations.

Soil contaminated with aerially deposited lead would be removed and disposed of in concurrence with the variance issued to the Department by the California Department of Toxic Substances Control (DTSC), effective date September 22, 2000. This material may be reused for embankment fill, retaining wall backfill, and/or excavation of clean soils and backfilling, and capped with an appropriate amount of clean fill material. Specifically, DTSC granted the Department a variance in 1995 to allow for the use of some lead-contaminated soils for fill and backfill during construction of freeway improvements, provided that the Department's handling and use of those soils are consistent with the conditions, limitation, and requirements described in that variance. A copy of that variance is available for review at the Department's District 7 office. It is anticipated that all of the lead-contaminated soil in the study area would be used during construction of the proposed project. Although there is not expected to be the need to remove and dispose of any lead-contaminated soil off site during construction, any excess contaminated soil would be disposed of consistent with all applicable federal, state, and local regulations; therefore, the proposed project would not result in significant adverse impacts related to lead-contaminated soil.

There is potential for the generation of asbestos-containing waste associated with the demolition and removal of existing bridges and structures on I-10 and of older structures on ROW acquired for the proposed project. Predemolition asbestos sampling and notification are included as part of the proposed project, consistent with the requirements of the South Coast Air Quality Management District. Compliance with existing regulations would reduce the potential for release of asbestos during construction to a level below significant.

The existing yellow thermoplastic and yellow-painted traffic stripes on I-10 may contain lead and/or chromium. Removed thermoplastic and yellow paint would be disposed of at an appropriate site, in accordance with local, state, and federal laws. This would reduce the potential for adverse impacts associated with any potential lead- and chromium-containing stripes to a level below significant.

The Department has existing programs for sweeping shoulder areas and for manual collection of litter along freeways. Department landscaping includes the collection of litter, grass clippings, and trimmings from bushes, shrubs, and trees. The Department conducts all litter collection and deposition consistent with federal, state, and local standards and requirements. These procedures would also apply to the proposed project. No mitigation is required.

c. **Less Than Significant Impact.** While there are several schools located within 0.25-mile of the proposed project corridor,

impacts associated with mobile-source air toxics (MSAT) are not expected to be significant given the following considerations: (1) there is already an existing freeway in the study area; (2) highway improvements would not move the freeway appreciably closer to these schools; and (3) based on other similar HOV projects, studies have shown that, depending on the constituent, only slight percentage increases/decreases in MSAT emissions are projected to occur with the HOV lanes in operation.

d. **Less Than Significant With Mitigation.** The San Gabriel Valley Area 2 National Priorities List site (SGVA2) is located within the proposed project site. Groundwater within this vicinity may be contaminated; however, based on preliminary construction plans, excavation activity would not likely reach the existing groundwater table. Should encroachment into SGVA2 occur, appropriate procedures would be followed to provide adequate protection to works and the public.

e and f. **No Impact.** The proposed project location is not within 2 miles of an existing public or private use airport or within the vicinity of a private airstrip. The nearest airstrips (i.e., public or private) are: Brackett Field, located 2 miles northeast from the eastern project terminus; and El Monte Airport, approximately 3 miles west-northwest from the western project terminus. No mitigation is required.

g. **Less Than Significant Impact.** Construction and operation of the proposed project could potentially interfere with current emergency response plans or emergency evacuation plans for local, state, or federal agencies. Emergency access issues could occur during construction without proper communication protocol and traffic controls. A Traffic Management Plan (TMP) would be prepared during the design stage of the proposed project. All emergency service providers would be informed of the construction schedule, lane closures, and detours well in advance of these activities being implemented throughout the construction period.

h. **Less Than Significant impact.** Based on a site visit plus review of the General Plans for jurisdictions through which I-10 passes, it has been determined that there are no defined wildlands in the immediate vicinity of the project study area. Frank G. Bonelli County Regional Park is located northeast of the I-10 Interchange with SR 57/SR 71, but outside the study area. The city of West Covina categorizes land in the San Jose Hills to the east of Grand Avenue and south of I-10 as 'very high' risk area for wildland fires. This area is at the wildland/urban interface where the potential for fire damage is heightened; however, considering that the proposed project would neither involve construction of habitable structures nor land use changes, it is concluded that there would not be an increased exposure of people or structures to a significant risk involving wildland fires. Caltrans' ongoing programs for brush clearance and weed abatement would continue through construction and operation of the proposed project. No mitigation is required.

IX. HYDROLOGY AND WATER QUALITY: Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Violate any water quality standards or waste discharge requirements?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

f) Otherwise substantially degrade water quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
j) Inundation by seiche, tsunami, or mudflow	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

a. **Less than Significant Impact.** Design, construction, and operation of the proposed I-10 HOV Lane Project would be consistent with applicable federal, state, and local water quality standards. The Department's Storm Water Management Plan, Storm Water Quality Handbooks, and District Directive 20 address stormwater management and would apply, as appropriate, to construction and operation of the HOV lanes. The proposed project would also be subject to the requirements of the Department's existing National Pollutant Discharge Elimination System (NPDES) permit (Order No. 99-06-DWQ, NPDES No. CAS000003), which prescribes the use of BMPs to minimize erosion to the maximum extent practicable; therefore, the proposed project would not result in inconsistencies with or violations of federal, state, and local water quality standards. No mitigation is required.

b. **No impact.** The proposed project site overlies the San Gabriel Valley Groundwater Basin (RWQCB, 1995). According to the Geotechnical Investigation for this project, construction activities would not impact groundwater (Caltrans, 1993a). No mitigation is required.

c. **No impact.** The proposed project would result in only minor changes to the existing drainage pattern within the subject I-10 corridor, and with the aforementioned BMP controls would not result in related erosion or downstream siltation either on- or off-site. The Caltrans Highway Design Manual requires the design of modified highways to direct storm and landscaping runoff to storm drains and to avoid unnecessary flow of water over unpaved and nonlandscaped areas; therefore, the proposed project would not result in substantial impacts related to erosion. No mitigation is required.

d. **Less Than Significant Impact.** Walnut Creek crosses the project corridor in a reinforced concrete box culvert to the west of Grand Avenue. An unnamed drainage also crosses the project corridor west of Forest Lawn Memorial Park Cemetery in an earth-lined channel. Because no permanent structures would be placed within these watercourses, the proposed project would not result in adverse impacts related to changes in water courses. No mitigation is required.

A small concrete-lined drainage channel parallel to eastbound I-10 west of Kellogg Drive would be realigned. Permits will be required from USACE (Clean Water Act Section 404 permit), Regional Water Quality Control Board (Clean Water Act Section 401 permit), and CDFG (Section 1601 Streambed Alteration Agreement). This unnamed concrete drainage channel would be replaced in kind, using BMPs for water quality and in conjunction with the desires of the applicable permitting agencies. All conditions of the permit would be made part of this project and would be implemented to ensure there are no significant impacts to water conveyances.

e. **Less Than Significant Impact.** Most of the locations where new construction is expected to occur are currently paved. The Design Manual requires that 100 percent of potential runoff from new impervious surface areas associated with the proposed project be treated before offsite discharge. In addition, current drainage facilities within the project area would be upgraded to provide improved treatment of runoff. Drainage facilities would be designed to be consistent with established drainage plans for the area.

f. **Less Than Significant Impact.** Walnut Creek, which drains Puddingstone Reservoir before crossing I-10 west of Grand Avenue and traversing parallel to and south of the freeway, is listed as a Section 303(d) water body for pH and toxicity; therefore, it is subject to total maximum daily load discharge restrictions for these constituents. Considering traffic volume is expected to grow substantially in the future, the amount of motor vehicle-related pollutants discharged into the watershed and drainage channels from impervious surfaces would increase either with or without implementation of the proposed project. The increased area of impervious surfaces is small in comparison to the local watershed. The project design would include permanent BMPs to control and minimize discharge of pollutants to the watershed. Given these considerations, the proposed project would not have a significant impact on local water resources and quality.

The groundwater table in this area is at depths from approximately 50 to 500 feet below ground surface elevation. Because

there are only limited areas of pervious surfaces in the existing I-10 ROW, this area is not a major source of groundwater recharge; therefore, the proposed project would not result in any substantial change in the rate or amount of groundwater recharge. Given these considerations, the proposed project would not impact groundwater quality in this area. No mitigation is required.

g. **No Impact.** The proposed project would not involve construction of housing within the 100-year floodplain.

h. **Less Than Significant Impact.** A review of 2008 flood insurance rate maps prepared by the Federal Emergency Management Agency (FEMA) indicates the entire project area is within Zone X. These are areas protected from the 100-year flood event by levees that prevent overtopping of adjacent flood channels. This designation is consistent with conclusions reached in other project-specific floodplain studies prepared in 1993-94. The design of the proposed project at drainage crossings and stormwater facilities would be coordinated with the Los Angeles County Department of Public Works and the Public Works Departments of the local jurisdictions.

Runoff volumes would not increase substantially because there would be only a minor increase in impervious surface area on I-10 as a result of the proposed project. Runoff from I-10, including the HOV lanes, would be accommodated by the existing storm drain system; therefore, the proposed project would not result in substantial changes in the amount of water in surface water bodies. No mitigation is required.

i. **Less Than Significant Impact.** I-10, within the project area, is located within the inundation areas of three upstream reservoirs: Santa Fe, San Dimas, and Puddingstone dams. Santa Fe Dam, located in Irwindale approximately 2.5 miles north of I-10, is a 'dry dam' operated by USACE. This facility is used for groundwater recharge, control of heavy runoff, and as a backup for upstream reservoirs. San Dimas Dam, located in the Angeles National Forest north of San Dimas, has a rated capacity of 1,496 acre-feet. Puddingstone Dam, located at Frank G. Bonelli County Regional Park approximately 1-mile north of I-10, has a limited capacity by agreement of 6,083 acre-feet. Flows released from this reservoir discharge to Walnut Creek. The latter two facilities are managed by the Los Angeles County Department of Public Works. The dam owners/operators have developed Emergency Action Plans for each of these facilities, as required by FEMA. The proposed project would not increase exposure of the existing freeway to the floodwater effects in the very unlikely event of failure on one of these dams. The very small risk associated with failure of one of these dams could affect a wide swath of the project area, not just the existing I-10 with future improvements; therefore, the proposed project would not likely result in an increase in exposure of people or structures to a significant risk of loss, injury, or death involving flooding.

j. **No Impact.** The project site is not located on a lake and is approximately 30 miles inland from the nearest coastal area, so there is no potential for inundation by seiche or tsunamis. See response to VI.a(iv) regarding the potential impact associated with a mudflow.

**X. LAND USE AND PLANNING:** Would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

a. **No Impact.** I-10 has been in this location since the 1950s. The communities have grown around the existing freeway. The proposed project would result in mostly minor property acquisitions at several locations; however, these acquisitions should have no effect with regard to dividing an established community. No mitigation is required.

b. **No Impact.** The proposed project area is nearly built out; therefore, it has little unused land that could potentially be affected by the proposed project. The proposed project would not trigger any zoning changes. Neither would it conflict with any General Plan designations of the affected local agency jurisdictions. The proposed project would be consistent with the environmental goals and policies outlined in the cities of Baldwin Park, West Covina, Covina, San Dimas, Pomona, Walnut, and County of Los Angeles General Plans.

c. **No Impact.** See IV.f.

<b>XI. MINERAL RESOURCES:</b> Would the project:	<b>Potentially Significant Impact</b>	<b>Less Than Significant with Mitigation</b>	<b>Less Than Significant Impact</b>	<b>No Impact</b>
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

a-b. **No impact.** Based on review of General Plans for the jurisdictions through which I-10 passes, there are no known natural mineral resources or locally important mineral resource recovery sites in the I-10 project study area; therefore, the proposed project would not result in adverse impacts related to mineral resources. No mitigation is required.

<b>XII. NOISE:</b> Would the project result in:	<b>Potentially Significant Impact</b>	<b>Less Than Significant with Mitigation</b>	<b>Less Than Significant Impact</b>	<b>No Impact</b>
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

a. **Less Than Significant Impact.** Operation of the proposed project would result in a slight increase in noise at some adjacent uses due to the freeway widening bringing traffic noise closer to sensitive noise receptors. Additional noise would also be created by the higher speeds of vehicles traveling in the HOV lanes and an incremental increase in freeway speeds in the general-purpose lanes due to the reduction in congestion. As detailed in the *Traffic Noise Impact Technical Report*, existing noise levels range from 57 A-weighted decibels (dBA) to 79 dBA and are primarily due to freeway noise. The proposed project would increase noise levels by 1 to 2 dBA compared to existing conditions. This increase is below the threshold of human hearing to detect a noticeable change in noise levels, generally considered to be 5 dBA. This increase is not considered a substantial noise impact as defined by Caltrans as an increase of 12 dB or more relative to existing conditions. Given these considerations, the proposed project would not result in a significant increase in noise levels in adjoining areas.

Although the proposed project would not result in a significant increase in noise levels, existing noise levels due to traffic on I-10 currently exceed the Department's Noise Abatement Criteria (NAC). The NAC were established to identify excessive levels of traffic noise at noise sensitive uses. Where determined to be reasonable and feasible, soundwalls are proposed to be

constructed as part of the proposed project to reduce existing traffic noise levels at frequent outdoor use areas. The general locations of these soundwalls are shown in the *Traffic Noise Impact Technical Report*. The final soundwall locations, heights, and lengths would be determined during final design. With the construction of soundwalls in areas found to exceed the Department's NAC, no mitigation is required.

It should be noted that if pertinent parameters change substantially during the final design of the proposed project, then the noise abatement design may be changed or eliminated during final design. A final decision on noise abatement measures, such as noise barriers, would be made on completion of final design and the public involvement review process. Consequently, if the specific location, length, and height of noise barriers that have been shown to be feasible and reasonable are altered or changed during the design phase, reevaluation of the noise abatement will be required. Each of the noise barriers recommended by this study was found to be feasible, providing 5 dBA or more noise reduction to affected noise receivers. For any of the noise barriers considered to be reasonable from a cost perspective, the total estimated cost of the barrier must be at or below the allowance calculated for each noise barrier. The final decision to include noise barriers in the project design and the final design of the soundwalls, if included, will be made based on the information contained in the noise technical report and pertinent information received during the public review process.

**b. Less Than Significant Impact.** Construction activity can result in varying degrees of ground vibration, depending on the equipment and methods used. The operation of construction equipment causes vibrations that spread through the ground and diminish in strength with traveled distance. Buildings in the vicinity of the construction site can be affected by these vibrations, with resulting damage in the most severe cases. Vibratory rollers and impact pile driving would be the most dominant sources of overall construction vibration for the proposed project. The vibration levels created by the normal movement of vehicles, including graders, front loaders, and backhoes, are comparable in order-of-magnitude to groundborne vibrations created by heavy vehicles traveling on streets and highways. Building damage can be cosmetic or structural. Normal buildings that are not particularly fragile would not experience any cosmetic damage (e.g., plaster cracks) at distances beyond 25 feet based on typical construction equipment vibration levels. This distance can vary substantially depending on the soil composition between vibration source and receiver. There are many standard construction procedures that would be included in project specifications to minimize intrusion without placing unreasonable constraints on the construction process or substantially increasing costs.

Regarding facility operation, significant vibration impact from rubber-tire-fitted vehicles is extremely rare. This is because rubber-tire-fitted vehicles are typically well-isolated by the vehicle suspension design and rubber tires, which act as a highly effective barrier to vibration transmission from the vibration-generating carriage and the main propagation medium for vibration excitation, the ground; therefore, potential vibration impact from traffic on the freeway can be reasonably dismissed. There may be slight vibration issues at residences close to the traveled way if there are cracks, uneven slabs, and/or damaged expansion joints; therefore, the proposed project would not result in substantial levels of vibration. No mitigation is required.

**c. Less Than Significant Impact.** See response to XII.a. The proposed project with soundwall abatement is not expected to result in a substantial permanent ambient noise level increase above levels existing without the project at frequent outdoor use areas.

**d. Less Than Significant Impact.** Equipment involved in construction is expected to generate noise levels ranging from 80 to 89 decibels at a distance of 50 feet. Noise produced by construction equipment would be reduced at a rate of approximately 6 dB per doubling of distance from the source. Measures would be applied during construction to reduce short-term noise disturbances at sensitive receptors. These include, but are not limited to, using equipment with noise mufflers in good condition; applying construction methods and using equipment that would provide the lowest level of noise impact; turning off idling equipment; and using temporary noise barriers, as needed.

**e and f. No Impact.** The project location is not within 2 miles of an existing public or private use airport or within the vicinity of a private airstrip. The nearest airstrips (i.e., public or private) are: Brackett Field, located 2 miles northeast from the eastern project terminus; and El Monte Airport, approximately 3 miles west-northwest from the western project terminus. No mitigation is required.

XIII. POPULATION AND HOUSING: Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Induce substantial population growth in an area, either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through extension of roads or other infrastructure)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Displace substantial numbers of existing housing, necessitating	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

the construction of replacement housing elsewhere?

c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?

a-c. **Less Than Significant Impact.** Numerous temporary construction easements and partial parcel acquisitions would be required at various locations within the proposed project corridor. The partial property acquisitions would mostly be required to provide 1 to 2 feet of additional ROW. These partial acquisitions would include, but not be limited to, land currently used for parking, frontage roads, single-family residential, and public access purposes. Coordination with affected property owners within each local jurisdiction would occur. During the acquisition process, issues such as parking supply and public access would be addressed; therefore, no mitigation is required.

No full residential acquisitions are anticipated to result as part of the proposed project; however, as discussed in the previous paragraph, partial residential acquisitions may result as part of the proposed project. If there are any full property acquisitions, property owners would be compensated the fair market value for properties subject to acquisition. As required by existing federal and state laws, Caltrans would comply with the provisions of the Uniform Relocation and Assistance Real Property Acquisition Policies Act of 1970, as amended (California Government Code, Chapter 16, Section 7260, *et. seq.*). Displaced persons would be entitled to reimbursement of certain actual, reasonable moving expenses pursuant to 25 California Code of Regulations (CCR) §6090 and compensation for replacement housing payments as provided by 25 CCR §§6102 and 6104. All benefits and services would be provided equitably to all affected parties without regard to race, color, religion, age, national origins, and disability as specified under Title VI of the Civil Rights Act of 1964.

**XIV. PUBLIC SERVICES:**

	<b>Potentially Significant Impact</b>	<b>Less Than Significant with Mitigation</b>	<b>Less Than Significant Impact</b>	<b>No Impact</b>
a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

a (Fire and Police). **Less than Significant Impact.** Emergency access issues could occur during construction without proper communication protocol and traffic controls. A TMP would be prepared during the design stage of the proposed project. All emergency service providers would be informed of the construction schedule, lane closures, and detours well in advance of these activities being implemented throughout the construction period.

Because the proposed project would result in safer freeway operations, there would be no impact due to increased demand or creation of new demand on fire or police protection services.

a (Schools). **No Impact.** The proposed project would not increase the demand, or create new demand, for school services.

a (Parks). **No Impact.** The proposed project would not increase the demand, or create new demand, for park services.

a (Other Public Facilities). **No Impact.** There are several public service facilities located within the project study area; however, the proposed project would not require the need for new or physically altered government facilities or the need to construct

new facilities to maintain acceptable service ratios, response times, or other performance objectives for public services.

**XV. RECREATION:**

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

a. **No Impact.** There are no publicly owned parks or recreation areas adjacent to the project corridor. The southwest corner of Frank G. Bonelli County Regional Park is located northeast of the I-10 interchange with SR 57/SR 71 but outside the study area. The proposed project would not result in a substantial adverse impact on bicycle trails because existing trails would be retained during facility construction and operation; therefore, the proposed project would not impact any publicly owned park or recreation area. No mitigation is required.

b. **No Impact.** The proposed project would involve adding HOV lanes to an existing freeway, among other improvements. No recreational facilities are part of the proposed project. No mitigation is required.

**XVI. TRANSPORTATION/TRAFFIC:** Would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

a. and b. **Less Than Significant Impact.** The proposed project would not conflict with any applicable plans, ordinances, or policies establishing measures of effectiveness for the performance of the circulation system. In fact, the proposed project is designed to improve level of service and to help relieve congestion on the freeway and adjacent roadways. There would, however, be increased congestion at different locations during construction. These impacts would be minimized through development and implementation of a required TMP. Caltrans will use a public outreach team for this project to communicate with the public in advance regarding potential delays associated with construction activities.

c. **No Impact.** The proposed project is a highway project and not in the vicinity of an airport; therefore, it would not affect air traffic patterns.

d. **Less Than Significant Impact.** The proposed project would be designed in accordance with Caltrans' design requirements and local and state regulations. The proposed project chiefly utilizes standard design features; however, the use of some nonstandard design features would be applied to decrease the need for substantial ROW property acquisition, reduce project costs, and help minimize environmental impacts. On- and off-ramps would be designed to improve traffic flow characteristics to accommodate projected traffic volumes and improve operating safety. No mitigation is required.

e. **Less Than Significant Impact.** When the proposed project is operational, the improved operating conditions on I-10 would beneficially affect emergency service providers by reducing travel times. For construction impacts, see response to Item XIV.a (Fire and Police) above. No mitigation is required.

f. **Less Than Significant Impact with Mitigation.** The proposed project would facilitate improved transit use within the corridor and would not conflict with any adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities. During construction, there would be short-term transit service delays during bridge work at local street over- or under-crossings, as well as during temporary ramp closures. Bicycle and pedestrian traffic would also be affected during construction by temporary detours at local street crossings. Most of the lane closures would be planned to occur during non-peak hours to minimize effects on bicyclists and pedestrians. These impacts would be minimized through development and implementation of a required TMP. Mitigation would include coordination with regional transit companies to discuss in advance construction methods and scheduling for street, connector, and ramp closures.

<b>XVII. UTILITIES AND SERVICE SYSTEMS:</b> Would the project:	<b>Potentially Significant Impact</b>	<b>Less Than Significant with Mitigation</b>	<b>Less Than Significant Impact</b>	<b>No Impact</b>
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g) Comply with federal, state, and local statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

a. **No Impact.** In comparison to overall system capacity, minimal wastewater would be generated by the proposed project during construction. Due to the nature of the proposed project, there would be no wastewater produced during facility operation.

b. **No Impact.** The proposed project consists of adding HOV lanes to an existing freeway. New wastewater or water treatment facilities are not a component of the proposed project. Limited water used at the site, such as for dust control during construction, would be metered from local fire hydrants.

c. **Less Than Significant Impact.** As stated above, construction of the proposed project could result in minor modifications to the storm water drainage system; however, the effects of these changes on the environment are expected to be less than significant because the major flow regime within the study area (discharge to Walnut Creek) would be retained intact. As the study area is mostly developed urban land, the increase in pavement and structures due to the proposed project would not be expected to substantially increase the amount of stormwater runoff (Caltrans, 2002b).

d. **No Impact.** While irrigation water would be required for landscaping, the volume of water needed for this purpose would be small and would not trigger the need for new water sources or affect expansion of an existing facility to meet the additional water needs.

e. **No Impact.** As a proposed transportation project, neither its construction nor operation would substantially increase the amount of wastewater generated at the site over current rates; therefore, the capacity of current providers to treat the wastewater volumes within the study area would basically be unaffected by the proposed project.

f. **Less Than Significant Impact.** The nearest operating landfill is Puente Hills Landfill, located more than 4 miles southwest from the Puente Avenue interchange. In 2009, the landfill had an estimated remaining capacity of 35.2 million cubic yards, approximately 47 percent of its total capacity. The Puente Hills Landfill is capable of accommodating waste from the proposed project that needs to be disposed; accordingly, it would have a less than significant impact on the landfill's available capacity.

g. **Less Than Significant Impact.** The proposed project would be in compliance with all federal, state, and local codes and regulations pertaining to the disposal of solid waste. These codes include Part 13 Title 42 – Public Health and Welfare of the California Health and Safety Code, and Chapter 39 Solid Waste Disposal – of the United States Code. The proposed project would also be compliant with AB 939, the California Solid Waste Management Act, which requires each city in the state to divert at least 50 percent of their solid waste from landfill disposal through source reduction, recycling, and composting. Most concrete demolition debris would be crushed and reused for this project. Given these considerations, there would be no significant impacts associated with consistency related to laws pertaining to solid waste disposal.

**XVIII. MANDATORY FINDINGS OF SIGNIFICANCE**

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

a. **Less than Significant Impact.** The proposed I-10 HOV Lane Project would improve the quality of the environment. The addition of the HOV lanes on I-10 would improve traffic flow, encourage shared ride travel modes, and reduce congestion. Operation of the proposed project would save fuel per vehicle passenger mile, reduce vehicle emissions, and improve air quality. The incorporation of soundwalls at various locations along I-10 would reduce noise levels on adjacent sensitive land

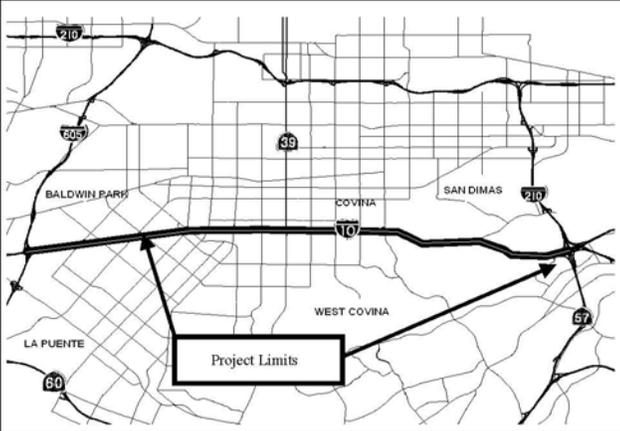
uses. Because I-10 is in a highly urbanized area, there are only limited native plant species and wildlife species in this area; therefore, the proposed project would not affect any unique, threatened, or endangered species of plants, animals, or their critical habitats. There are no important extant examples of major periods of California history or prehistory known to be in the project study area that would be subject to adverse effects.

b. **Less than Significant Impact.** Other Department projects in the study area vicinity are largely within the existing I-10 freeway ROW and are not considered to result in adverse environmental effects. The ongoing 'Segment 1' HOV project, as well as currently programmed projects for the I-10 corridor, would beneficially affect the flow of traffic in and near the study area. Associated landscaping and soundwall projects would result in cumulatively beneficial visual and noise reduction effects in the study area. When considered cumulatively with the proposed project, these Department projects would benefit the traveling public without contributing to a substantial cumulative adverse impact on the environment.

c. **Potentially Significant Impact.** The proposed project corridor, while not traversed by any Alquist-Priolo Zone, is in a seismically active area potentially influenced by several known active faults, including the San Jose Fault which crosses I-10 at the eastern project terminus. Ground shaking during an earthquake is considered the primary risk for potential future structural damage to I-10 and the proposed project. The potential impacts associated with ground shaking would vary greatly, depending on the fault on which the earthquake occurs, the distance of the earthquake epicenter from I-10, and the magnitude and the duration of the earthquake episode. The Puente Formation at Kellogg Hill has historically experienced several landslides caused by weakness along the contorted bedding planes. Retaining walls are recommended to be included in the project design in instances where ROW constraints would not allow all slopes to be cut parallel to the existing slope ratios. The proposed action may include other design features, where determined necessary, to minimize the potential for losses due to potential future slope failure activity.

This page intentionally left blank.

## Appendix B Notice of Preparation

	<p><b>Notice of Preparation</b> For an Environmental Document for: Interstate Route 10 High Occupancy Vehicle Lanes Project in Los Angeles County</p>
	
<p><b>WHAT IS BEING PLANNED?</b></p> <p>The California Department of Transportation (Department) is proposing to widen the existing Interstate Route 10 facility in Baldwin Park and West Covina from Puente Avenue and Citrus Street (Segment 2) and between Citrus Street and State Route 57/Interstate Route 210 (Segment 3) by constructing one High Occupancy Vehicle (HOV) lane in each direction with possible climbing lanes, pavement rehabilitation, restriping existing lanes, widening existing freeway bridges, installing guardrails, alteration of on and off-ramps at Vincent Avenue, and constructing soundwalls and retaining walls as necessary. This project will accommodate traffic growth associated with planned, approved development and it is an integral element of the proposed regional freeway-based HOV system in Los Angeles County.</p>	
<p><b>WHY THIS NOTICE?</b></p> <p>In 2003, the Department and the Federal Highway Administration (FHWA) signed a Mitigated Negative Declaration/Finding of No Significant Impact (MND/FONSI) for all three segments of the I-10 HOV Lanes project. In 2006, an Environmental Re-Evaluation document was signed for Segment 1 (from Interstate 605 to Puente Avenue) and this particular segment was built. In 2010, the Department began to prepare a Re-Evaluation document for Segments 2 and 3 due to project design changes that had occurred in the intervening time. In the process of preparing this document, the Department determined that an Environmental Assessment/Environmental Impact Report (EA/EIR) should be prepared and publically circulated due to substantial design changes.</p>	
<p><b>WHERE DO YOU COME IN?</b></p> <p>The purpose of this notice is to insure public involvement, including public agencies, interested groups, and individuals, in the environmental process. Additionally, a public hearing will be held to discuss the project studies when sufficient engineering, environmental, and socioeconomic data is collected. This hearing will be publicized and you will be notified in advance of the time and location.</p>	
<p><b>CONTACT</b></p> <p>If you wish to be on a mailing list for actions concerning this project or if you have any questions regarding this project, please contact Gary Iverson, Senior Environmental Planner, in the Division of Environmental Planning at (213) 897-3818.</p>	

This page intentionally left blank.

## Appendix C Glossary of Technical Terms

Term	Definition
abutting	With respect to jurisdictional determinations, wetlands that are not separated from the tributary by an upland feature, such as a berm or dike, is "abutting."
active fault	A fault on which movement has occurred in the past 10,000 years and that may be subject to recurring movement.
adjacent	The term "adjacent" means bordering, contiguous, or neighboring. Wetlands separated from other waters of the U.S. by human-made dikes or barriers, natural river berms, beach dunes, and the like are "adjacent wetlands."
aesthetics	The science or philosophy concerned with the quality or sensory experience. It is also viewed as a body of knowledge about those characteristics of objects that make them pleasing or displeasing to the senses, and those characteristics of human perception that affect sensation. The quality of being aesthetics is not the opposite of 'practicality' or 'reality', but rather another aspect or way of experiencing the same real world phenomena. Thus, blue skies, uncontaminated water, and uncluttered urban landscapes all have aesthetic value, because they imply health, pleasure, and security."
Air Pollution Control District (APCD)	A county agency with authority to regulate stationary, indirect, and area sources of air pollution (e.g., power plants, highway construction, and housing developments) within the county, and which is governed by a district air pollution control board composed of the elected county supervisors.
Air Quality Management District (AQMD)	A group of counties or portions of counties with authority to regulate stationary, indirect, and area sources of air pollution within the region and which is governed by a regional air pollution control board primarily consisting of elected officials from within the region.
Air Quality Management Plan (AQMP)	A plan prepared by an air pollution control district or an air quality management district for a county or region designated as a nonattainment area. The plan's purpose is to bring the area into compliance with the requirements of national and or California ambient air quality standards. AQMPs are incorporated into the State Implementation Plan.
alluvium	Sediments deposited by flowing water, as in a river bed.
Alquist-Priolo Special Studies Zone	An area established along and parallel to the traces of active faults to prohibit the location of structures on the traces of such faults.
ambient air	That portion of the atmosphere outside buildings to which the general public has access.
Ambient Air Quality Standards (AAQS)	Standards established at state or federal levels that define the limits for airborne concentrations of designated pollutants in order to protect health and welfare.
aquifer	A water-bearing rock, rock formation, or group of formations.
archaeology	The systematic recovery and study of material evidence (e.g., structures, tools, and pottery) remaining from past human life and cultures in order to study human ecology and cultural progress.
area of potential effect	A term used in Section 106 regulations (36 <i>Code of Federal Regulations</i> [CFR] 800) to describe the area in which historic and archaeological resources may be affected by a federal undertaking.
arterial	A signalized street with signal spacings of 2 miles or less and turning movements at intersections that do not exceed 20 percent of total traffic. Urban arterials primarily serve through traffic and are designed to facilitate traffic movement.

Term	Definition
attainment area	An area designated by EPA and appropriate state air quality agency as having ambient air quality levels below ceiling levels defined by the National Ambient Air Quality Standards.
average daily traffic (ADT)	Average volume of traffic in number of vehicles at a given location within a 24-hour period.
base floodplain	The area subject to flooding by the flood or tide having a 1-percent chance of being exceeded in any given year.
baseline	Characterization of existing and future growth of an area without the proposed project.
basin	Drainage or catchment area of a stream or lake.
beneficial use	A use of a natural water resource that enhances the social, economic, and environmental well-being of the user. Twenty-one (21) beneficial uses are defined for the waters of California, ranging from municipal and domestic supply to fisheries and wildlife habitat.
Best Management Practice (BMP)	Policies, practices, procedures, or structures implemented to mitigate the adverse environmental effects on surface water quality resulting from development. BMPs are categorized as structural or nonstructural.
California Air Resources Board (CARB)	California's lead air quality agency, consisting of a nine-member governor-appointed board. CARB is responsible for attaining and maintaining state and federal air quality standards and is fully responsible for controlling motor vehicle pollution. CARB oversees county and regional air pollution management programs. <a href="http://www.arb.ca.gov/homepage.htm">http://www.arb.ca.gov/homepage.htm</a>
California Department of Fish and Game (CDFG)	State regulatory agency with jurisdiction over various permitting activities for wetlands and state-listed endangered species (plants and animals). <a href="http://www.dfg.ca.gov/">http://www.dfg.ca.gov/</a>
California Department of Transportation (Caltrans)	State agency that issues encroachment permits to ensure that the proposed encroachment is compatible with the state highway system, highway drivers' safety, and the state's investment in highway facilities. <a href="http://www.dot.ca.gov/">http://www.dot.ca.gov/</a>
California Endangered Species Act (CESA)	State equivalent of the Federal Endangered Species Act (FESA). <a href="http://www.dfg.ca.gov/habcon/cesa/">http://www.dfg.ca.gov/habcon/cesa/</a>
California Environmental Quality Act (CEQA)	State environmental legislation enacted in 1970 that is intended to ensure that the environmental consequences of a proposed public agency action are considered by decision makers with regard to project approval. Environmental Impact Reports (EIRs) are a principal means by which such environmental consequences are disclosed. <a href="http://ceres.ca.gov/ceqa/">http://ceres.ca.gov/ceqa/</a>
California Native Plant Society (CNPS)	Conservation organization focused on rare and endangered plants in California. <a href="http://www.cnps.org/">http://www.cnps.org/</a>
California Natural Diversity Database (CNDDB)	State Endangered Species Act program responsible for maintaining information on the status and distribution of rare, threatened, and endangered species in California. <a href="http://www.dfg.ca.gov/biogeodata/cnddb/">http://www.dfg.ca.gov/biogeodata/cnddb/</a>
capacity	The road's ability to carry particular traffic volumes while maintaining prescribed operational qualities (e.g., a specific level of service); the maximum amount of traffic that a facility can accommodate.
carbon monoxide (CO)	A colorless, odorless gas resulting from the incomplete combustion of fossil fuels. More than 80 percent of the CO emitted in urban areas comes from motor vehicles. CO interferes with the blood's ability to carry oxygen to the body and causes many adverse health effects. CO is a criteria air pollutant.
carrying capacity	The maximum number of animals that an area can support during a given period of the year.

Term	Definition
Civil Rights Act of 1964, Title VI	A policy of the United States that prevents discrimination on the grounds of race, color, or national origin in connection with programs and activities receiving federal financial assistance. <a href="http://www.ourdocuments.gov/doc.php?flash=true&amp;doc=97&amp;page=transcript">http://www.ourdocuments.gov/doc.php?flash=true&amp;doc=97&amp;page=transcript</a>
Clean Air Act (CAA)	The Clean Air Act of 1970 and the subsequent amendments, including the Clean Air Act Amendments (CAAA) of 1990 (42 USC 7401–7671g), is the primary federal law that protects the nation's air resources. This act establishes a comprehensive set of standards, planning processes, and requirements to address air pollution problems and reduce emissions from major sources of pollutants. Basic elements of the act include National Ambient Air Quality Standards for the major air pollutants, air toxics standards, acid rain control measures, and enforcement provisions. <a href="http://www.epa.gov/air/caa/">http://www.epa.gov/air/caa/</a>
Clean Water Act (CWA) of 1972	Also known as the Federal Water Pollution Control Act (FWPCA) 33USCA Sections 1251 to 1387 (alternatively cited as Sections 101 - 607). The primary goal as defined in Section 1251(a) is "to restore and maintain the chemical, physical, and biological integrity of the Nation's waters." Jurisdiction to regulate "waters of the U.S.," vested under this Act include: Section 303 (Water Quality Standards and implementation Plans), Section 311 (Spill Program and Oil Pollution Act), Section 401 (State Water Quality Certification), Section 402 (National Pollutant Discharge Elimination System [NPDES]), Section 404 (permits for dredge or fill material). <a href="http://www.epa.gov/lawsregs/laws/cwa.html">http://www.epa.gov/lawsregs/laws/cwa.html</a>
Clean Water Act (CWA) Section 303	Section 303 Water Quality Standards Program: Under this program, State and authorized Indian Tribes establish water quality standards for navigable waters to "protect the public health or welfare" and "enhance the quality of water," "taking into consideration their use and value for public water supplies, propagation of fish and wildlife, recreational purposes, and agriculture, industrial, and other purposes, and also taking into consideration their use and value for navigation."
Clean Water Act (CWA) Section 401	Section 401 State Water-Quality Certification: Provides that no Federal permit or license for activities that might result in a discharge to navigable waters may be issued unless a CWA Section 401 Water Quality Certification is obtained from or waived by States or authorized Tribes.
Clean Water Act (CWA) Section 402	Section 402 National Pollutant Discharge Elimination System (NPDES) Program: This program established a permitting system to regulate point source discharges of pollutants (other than dredged or fill material) into waters of the U.S.
Clean Water Act (CWA) Section 404	Section 404 Dredged and Fill Material Permit Program: This program has established a permitting system to regulate the discharges of dredged or fill material into waters of the U.S.
climate	Prevalent or characteristic weather conditions (and their extremes) for a location or region.
compensatory mitigation	The restoration, establishment (creation), enhancement, or reservation of aquatic resources for the purpose of compensating for unavoidable adverse impacts which remain after all appropriate and practicable avoidance and minimization has been achieved.
Comprehensive Environmental Response, Compensation, and Liability Act	CERCLA, commonly known as Superfund, was enacted by Congress on December 11, 1980. This law created a tax on the chemical and petroleum industries and provided broad Federal authority to respond directly to releases or threatened releases of hazardous substances that may endanger public health or the environment. <a href="http://www.epa.gov/superfund/policy/cercla.htm">http://www.epa.gov/superfund/policy/cercla.htm</a>
corridor	A strip of land centered on a linear facility such as a highway or utility right-of-way.
cumulative impact	The combined impacts from all projects occurring concurrently in a specific geographic area or to a particular system.

Term	Definition
decibel (dB)	A unit of noise measured on a logarithmic scale that compresses the range of sound pressures audible to the human ear over a range from zero to 140, where zero decibels represents sound pressure corresponding to the threshold of human hearing and 140 decibels corresponds to a pressure at which pain occurs. Noise analysts measure sound pressure levels that people hear in decibels, much like other analysts measure linear distances in yards or meters. A-weighted decibels (dBA) refer to a weighting that accounts for the various frequency components in a way that corresponds to human hearing.
decibel on the A-weighted scale (A-weighted decibel)-	Sound pressure level in decibels as measure on a sound level meter using the A-weighted filter network.
direct impact	Impacts caused solely and immediately by project implementation, frequently resulting physical removal of the affected resource.
discharge	Any discharge of dredged or fill material and any activity that causes or results in such a discharge.
disturbed area	Land that has had its surface altered by grading, digging, or other construction-related activities.
earthquake	A sudden motion or trembling in the earth caused by displacement of rocks below the earth's surface as a result of a release of strain.
effect	A change in attribute. Effects can be caused by a variety of events, including those that result from project attributes acting on the resource attribute (direct effect), those that do not result directly from the project or from the attributes of other resources acting on the attribute being studied (indirect effect), those that result from attributes of other projects or other attributes that change because of other projects (cumulative effects), and those that result from natural causes (e.g., seasonal change).
endangered species	A species that is threatened with extinction throughout all or a significant portion of its range.
energy equivalent noise level ( $L_{eq}$ )	The mean A-weighted sound level during a given time interval.
enhancement	The manipulation of the physical, chemical, or biological characteristics of an aquatic resource to heighten, intensify, or improve a specific aquatic resource function(s). Enhancement results in the gain of selected aquatic resource function(s), but may also lead to a decline in other aquatic resource function(s). Enhancement does not result in a gain in aquatic resource area.
Environmental Document	A draft or final EIS or EIR, Finding of No Significant Impact, Environmental Assessment, or Negative Declaration. A Categorical Exclusion form is not considered an environmental document; it is rather the documentation that the project is exempt/excluded.
Environmental Impact Report (EIR)	A disclosure document prepared pursuant to CEQA to evaluate potential impacts and to propose mitigation for significant impacts to facilitate informed decision making.
environmental justice	The fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies. Fair treatment means that no group of people, including racial, ethnic, or socioeconomic groups, should bear a disproportionate share of the negative environmental consequences resulting from industrial, municipal, and commercial operations or the execution of federal, state, local, and tribal programs and policies.
Environmental Protection Agency (EPA)	An agency of the executive branch of the federal government charged with establishing and enforcing environmental regulations. <a href="http://www.epa.gov/">http://www.epa.gov/</a>
exotic species	An organism or species that is not native to the area in which it is found.

Term	Definition
fault	A fracture or zone of fractures along which there has been movement of the sides relative to one another and parallel to the fracture.
fault zone	An area or region with numerous fractures or faults.
Federal Emergency Management Agency (FEMA)	Federal agency that addresses hazard mitigation, damage assessment, and emergency response; and compiles related statistics. <a href="http://www.fema.gov/">http://www.fema.gov/</a>
Federal Endangered Species Act (FESA)	National law regulating threatened and endangered species. It provides a system for protecting and conserving endangered and threatened species and protecting the ecosystems on which they depend. <a href="http://www.fws.gov/laws/lawsdigest/esact.html">http://www.fws.gov/laws/lawsdigest/esact.html</a>
floodplain	The relatively flat land lying adjacent to a river channel that is covered by water when the river overflows its banks.
flora	Plants collectively, especially the plants of a particular region or period.
fluvial	Pertaining to a river or stream.
forage	Food for animals (e.g., deer), especially when taken by browsing or grazing.
freeway	A multilane, divided highway with a minimum of two lanes in each direction.
geographic information system (GIS)	A computerized tool that allows complex sets of data to be combined in various layers and manipulated for purpose of analysis.
geologic hazard	A naturally occurring or human-made geologic condition or phenomenon that presents a risk or is a potential danger to life or property.
geologic unit	A geologic formation, group, or member.
Habitat Conservation Plan (HCP)	A planning document required to obtain a FESA section permit.
hazardous material	A substance, or combination of substances, which because of its quantity, concentration, or physical, chemical, or infectious characteristics may either cause, or significantly contribute to, an increase in mortality or an increase in serious irreversible illness; or pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, disposed of, or otherwise managed.
hazardous waste	Waste materials that, by their nature, are inherently dangerous to handle or dispose of (e.g., old explosives, radioactive materials, some chemicals, some biological wastes). Usually, industrial operations produce these waste materials.
historic property	Any prehistoric or historic district, site (including archaeological site), building, structure, or other object included in, or eligible for inclusion in, the National Register of Historic Places maintained by the Secretary of the Interior. This term includes artifacts, records, and remains that are related to and located within such properties. The term includes properties of traditional religious and cultural importance to an Indian tribe or Native Hawaiian organization that meet the National Register criteria (36 CFR Part 60).
hydrologic area	A major logical subdivision of a hydrologic unit (see definition below) that includes both water-bearing and nonwater-bearing formations. It is best typified by a major tributary of a stream, a major valley, or a plain along a stream containing one or more groundwater basins and having closely related geologic, hydrologic, and topographic characteristics. Area boundaries are based primarily on surface drainage boundaries. However, where strong subsurface evidence indicates that a division of groundwater exists, the area boundary may be based on subsurface characteristics.

Term	Definition
hydrologic subarea	A major logical subdivision of a hydrologic area (see definition above) that includes both water-bearing and nonwater-bearing formations.
hydrologic unit	A classification embracing one of the following features that are defined by surface drainage divides: (1) In general, the total watershed area, including water-bearing and nonwater-bearing formations; and (2) in coastal areas, two or more small contiguous watersheds having similar hydrologic characteristics, each watershed being directly tributary to the ocean and all watersheds emanating from one mountain body immediately adjacent to the ocean. As prescribed by the U.S. Geological Survey (USGS), hydrologic unit refers to the four levels of subdivisions, used for the collection and organization of hydrological data. The hierarchy of hydrological units include: (1) Regions (2) Subregions (3) Accounting Units, and (4) Cataloging Units. The identifying codes associated with these units are "hydrological unit codes."
hydrological unit – regions	The first level of USGS hydrological classification, which divides the Nation into 21 Major geographic areas. These geographic areas (hydrologic areas based on surface topography) contain either the drainage area of a major river, or the combined drainage areas of a series of rivers. Most of California is located within region "18." Notable exceptions include the Tahoe basin (Great Basin Region 16) and the Colorado River (Lower Colorado Region 15). All smaller hydrological units with the region begin with the region number (18).
hydrology	The science dealing with the properties, distribution, and circulation of water on the surface of the land and in the soil and underlying rocks.
igneous rock	Rock formed by solidification from a molten or partially molten state.
impact analysis	An assessment of the changes in attributes being studied for a given resource resulting from the implementation of the project; an aggregation of all (usually adverse) effects.
indirect impacts	Project-related impacts (usually because of population shifts or increased access) not attributable to being in the path of the project footprint but that would not have occurred without project construction or operation (e.g., a project maintenance road may provide access to an area previously inaccessible), resulting in disturbance to sensitive species.
Initial Study	Under CEQA, the Initial Study is prepared to determine whether there may be significant environmental effects resulting from a project. The Initial Study is attached to the Negative Declaration or Mitigated Negative Declaration. It can become the basis of an EIR if it concludes that the project may cause significant environmental effects that cannot be mitigated below the level of significance.
Interstate	The designated National System of Interstate and Defense Highways located in both rural and urban areas; they connect the East and West coasts and extend from Canadian border points to various points on the Mexican border.
Intrusive rock	Igneous rocks that cooled below the surface of the planet, however, and generally display large crystals due to the increased amount of time spent at mineral crystallization temperatures from the insulating effect of surrounding material.
L <sub>eq</sub> noise level	Average noise level over a specified time period (e.g., 1 hour).
level of service (LOS)	A term that denotes traffic operating conditions at a given intersection. There are six levels of service, A through F, which relate to traffic congestion from best to worst. In general, LOS A represents free-flow conditions with no congestion. Conversely, LOS F represents severe congestion with stop-and-go conditions.
liquefaction	The transformation during an earthquake of unconsolidated, granular, water-saturated sediment into a liquid form.
locality	A particular spot within a geologic unit from which a specimen is obtained or may be found; usually a location of dense or well-preserved fossils.

Term	Definition
long-term impacts	Impacts resulting from project construction or operation that would occur over an extended period of time. Construction activities may result in long-term impacts if a resource is destroyed or irreparably damaged or if the recovery rate of the resource is very slow.
low-income population	A population composed of persons whose median household income is below the Department of Health and Human Services poverty guidelines.
magnitude (earthquake)	A measure of strength of an earthquake or the energy it releases.
maximum credible earthquake	The largest earthquake capable of being produced from a source, structure, or region as it is currently known.
Metropolitan Planning Organization (MPO)	A federal designation for the forum for cooperative transportation decision making for an urbanized area with a population of more than 50,000.
minority population	A population composed of persons who are Black (non- Hispanic), Hispanic, Asian American, American Indian, or Alaskan Native.
mitigation measure	An action or precaution that can reduce or eliminate individual project impacts.
National Ambient Air Quality Standards (NAAQS)	Standards set by EPA for the maximum levels of air pollutants that can exist in the outdoor air without unacceptable effects on human health or the public welfare. <a href="http://www.epa.gov/air/criteria.html">http://www.epa.gov/air/criteria.html</a>
National Historic Preservation Act (NHPA)	The National Historic Preservation Act of 1966, as amended (16 USC 470-470 <i>et seq.</i> ; P.L. 89-665), is the basic legislation of the nation's historic preservation program that established the Advisory Council on Historic Preservation and the Section 106 review process. NHPA Section 106 requires every federal agency to "take into account" the effects of its undertakings on historic properties. <a href="http://www.achp.gov/nhpa.html">http://www.achp.gov/nhpa.html</a>
National Pollutant Discharge Elimination System (NPDES) permit	A permit that is required for facilities and activities that discharge waste into surface waters from a confined pipe or channel. <a href="http://cfpub.epa.gov/npdес/">http://cfpub.epa.gov/npdес/</a>
National Priorities List (NPL)	Sites designated for Superfund cleanup by EPA. <a href="http://www.epa.gov/superfund/sites/npl/">http://www.epa.gov/superfund/sites/npl/</a>
National Register or Historic Places (NRHP)	Administered by the National Park Service, the nation's master inventory of known historic properties, including buildings, structures, sites, objects, and districts that possess historic, architectural, engineering, archeological, or cultural significance at the federal, state, and local levels. The NRHP lists districts, sites, structures, and objects important in American history, architecture, archaeology, and culture; maintained by the Secretary of the Interior under authority of Section 2(b) of the Historic Sites Act of 1935 and Section 101 (a)(1) of the National Historic Preservation Act of 1966, as amended. <a href="http://www.nps.gov/nr/">http://www.nps.gov/nr/</a>
native vegetation	Plant life that occurs naturally in the study area without agricultural or cultivational efforts and prior to Euro-American contact.
nitrogen dioxide (NO <sub>2</sub> )	A poisonous gas used in the manufacture of nitric acid and sulfuric acids. Also a criteria air pollutant resulting from the combustion of fossil fuels.
nitrogen oxides (NO <sub>x</sub> ) -	A general term pertaining to compounds of nitric oxide (NO), nitrogen dioxide (NO <sub>2</sub> ), and other oxides of nitrogen. Nitrogen oxides are typically created during combustion processes, and are major contributors to smog formation and acid deposition. NO <sub>2</sub> is a criteria pollutant and may result in numerous adverse health effects.
nonattainment area	A geographic area that has been designated by EPA and the appropriate state air quality agency as not complying with one or more National Ambient Air Quality Standards (NAAQS).
nonnative vegetation	Plant communities dominated by exotic species.

Term	Definition
open water	Any area that, in a year with normal patterns of precipitation, has water flowing or standing above ground to the extent that an ordinary high water mark can be determined. Aquatic vegetation within the area of standing or flowing water is either nonemergent, sparse, or absent. Vegetated shallows are considered to be open waters. Examples of open waters include rivers, streams, lakes, and ponds.
ozone (O <sub>3</sub> )	A strong-smelling, pale blue, reactive toxic chemical gas consisting of three oxygen atoms. It is a product of the photochemical process involving the sun's energy. Ozone exists in the upper atmosphere ozone layer, as well as at the earth's surface. Ozone at the earth's surface causes numerous health effects and is a criteria air pollutant. It is a major component of smog.
paleontological resources	Fossilized plant or animal remains from past geologic periods.
particulate matter finer than 10 microns (PM <sub>10</sub> )	A major air pollutant consisting of tiny solid or liquid particles of soot, dust, smoke, fumes, and mists. The size of the particles (10 microns or smaller: 0.0004 inch or less) allows them to easily enter the air sacs deep in the lungs where they may be deposited to result in adverse health effects. PM <sub>10</sub> also reduces visibility and is a criteria air pollutant.
peak period	The hour of highest traffic volume on a given section of roadway between 7:00 a.m. and 9:00 a.m. or between 4:00 p.m. and 6:00 p.m.
practicable	Available and capable of being done after taking into consideration cost, existing technology, and logistics in light of overall project purposes.
prehistoric	The period of time before the written record (i.e., before Euro-American entry into the study area).
preservation	The removal of a threat to, or preventing the decline of, aquatic resources by an action in or near those aquatic resources. This term includes activities commonly associated with the protection and maintenance of aquatic resources through the implementation of appropriate legal and physical mechanisms. Preservation does not result in a gain of aquatic resource area or functions.
recharge	The process by which water is absorbed and added to the zone of saturation, either directly into a formation or indirectly via another formation.
Regional Transportation Plan (RTP)	The official intermodal metropolitan transportation plan that is developed through the metropolitan planning process for the metropolitan planning area, developed pursuant to 23 CFR Part 450.
Regional Water Quality Control Board (RWQCB)	State or regional regulatory agency whose jurisdiction includes regulation of waste discharges. The RWQCB is the state water pollution control agency for all purposes stated in the Federal Water Pollution Control Act.
rehabilitation	The manipulation of the physical, chemical, or biological characteristics of a site with the goal of repairing natural/historic functions to a degraded aquatic resource. Rehabilitation results in a gain in aquatic resource function, but does not result in a gain in aquatic resource area.
relevant reach	With respect to "significant nexus determinations," the "relevant reach" will include all tributary waters of the same order. Typically this will include the tributary and all adjacent wetlands reaching downstream from the project site to the confluence with the next tributary or upstream to a similar confluence.
restoration	The manipulation of the physical, chemical, or biological characteristics of a site with the goal of returning natural/historic functions to a former or degraded aquatic resource. For the purpose of tracking net gains in aquatic resource area, restoration is divided into two categories: re-establishment and rehabilitation.
revegetation	Regrowth or replacement of a plant community on a disturbed site. Revegetation may be assisted by site preparation, planting, and treatment, or it may occur naturally.

Term	Definition
right-of-way	The land used by a public utility.
riparian	Of or relating to land laying immediately adjacent to water and having specific characteristics of that transitional area (e.g., riparian vegetation).
riparian area	Riparian areas are lands adjacent to streams, lakes, and estuarine-marine shorelines. Riparian areas are transitional between terrestrial and aquatic ecosystems through which surface and subsurface hydrology connects waterbodies with their adjacent uplands. Riparian areas provide a variety of ecological functions and services and help improve or maintain local water quality. (See General Condition No. 20, in the NWP.)
riprap	A foundation or sustaining wall of stones or chunks of concrete thrown together on an embankment slope to prevent erosion.
river miles	The flowing distance between the waterbodies in question. Typically not a straight line; rather, the measurement is based on how far the water will travel from waterbody A to waterbody B. For example, the water in a meandering tributary will flow further than water flowing in a channelized tributary provided the two waterbodies are the same distance apart in the landscape.
runoff	Nonabsorbed excess water entering a stream or other conveyance channel shortly after rainfall.
rural area	A geographic area characterized by very low-density housing concentrations, agricultural land uses and a general lack of most public services.
sampling	The selection of a portion of a study area or population, the analysis of which is intended to permit a generalization about the entire population. In archaeology, samples are often used to reduce the amount of land area covered in a survey or the number of artifacts analyzed from a site.
scoping	A process for determining the scope of issues to be addressed in an Environmental Assessment and environmental impact statement (EIS) and for identifying significant issues to be analyzed in depth in an EIS.
seismic	Pertaining to an earthquake or earth vibrations.
seismic zone	An area of intense local seismicity.
short-term impact	Transitory effects of a proposed project, generally caused by construction activities or operations startup.
significance (CEQA)	CEQA defines a "Significant effect on the environment" as "a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project, including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic significance. An economic or social change by itself shall not be considered a significant effect on the environment. A social or economic change related to a physical change may be considered in determining whether the physical change is significant (§15382). CEQA requires that the lead agency identify each "significant effect on the environment resulting from the project and avoid or mitigate it. The CEQA Guidelines include mandatory findings of significance for certain effects, thus requiring preparation of an EIR.
significant nexus	In the context of CWA jurisdiction post- <i>Rapanos</i> , a waterbody is considered to have a "significant nexus" with a traditional navigable water if its flow characteristics and functions in combination with the ecological and hydrological functions performed by all wetlands adjacent to such a tributary, affect the chemical, physical, and biological integrity of a downstream traditional navigable water.

Term	Definition
single and complete project	The term "single and complete project" is defined at 33 CFR 330.2(i) as the total project proposed or accomplished by one owner/developer or partnership or other association of owners/developers. A single and complete project must have independent utility (see definition). For linear projects, a "single and complete project" is all crossings of a single water of the US (i.e., a single waterbody) at a specific location. For linear projects crossing a single waterbody several times at separate and distant locations, each crossing is considered a single and complete project. However, individual channels in a braided stream or river, or individual arms of a large, irregularly shaped wetland or lake, etc., are not separate waterbodies, and crossings of such features cannot be considered separately.
South Coast Air Basin (SCAB)	A 6,600-square-mile area bounded by the Pacific Ocean to the west and the San Gabriel, San Bernardino, and San Jacinto mountains to the north and east. The Basin includes all of Orange County and the nondesert portions of Los Angeles, Riverside, and San Bernardino counties. The topography and climate of the region combine to make the Basin an area of high air pollution potential.
Southern California Air Quality Management District (SCAQMD)	The local agency that is responsible for achieving and maintaining the CAAQS and the NAAQS in the South Coast Air Basin. <a href="http://www.aqmd.gov/">http://www.aqmd.gov/</a>
species diversity	A measure of the number of species and their relative abundance in a given assemblage or community.
State Historic Preservation Officer (SHPO)	The official within each state, authorized by the state at the request of the Secretary of the Interior, to act as liaison in implementing the National Historic Preservation Act. <a href="http://ohp.parks.ca.gov/">http://ohp.parks.ca.gov/</a>
State Implementation Plan (SIP)	A compilation of goals, strategies, schedules, and enforcement actions that will lead the state into compliance with all federal air quality standards.
State Water Resources Control Board (SWRCB)	The principal authority of California for regulating the quantity and quality of waters of the state, established by the legislature in 1967. It assumed responsibility for administration of the Porter-Cologne Water Quality Control Act of 1969. The SWRCB and the nine RWQCBs are responsible for regulating, protecting, and administering water quality in California. The SWRCB, which sets state policies on administering water rights and water quality control, is run by five full-time members appointed by the governor and includes legal, technical, and administrative staff. The principal laws that have been established to plan, implement, manage, and enforce control of water quality are the Federal Clean Water Act and the California Porter-Cologne Water Quality Control Act (California Water Code, Division 7). <a href="http://www.swrcb.ca.gov/">http://www.swrcb.ca.gov/</a>
stormwater management	Stormwater management is the mechanism for controlling stormwater runoff for the purposes of reducing downstream erosion, water quality degradation, and flooding and mitigating the adverse effects of changes in land use on the aquatic environment.
streambed	The substrate of the stream channel between the ordinary high water marks. The substrate may be bedrock or inorganic particles that range in size from clay to boulders. Wetlands contiguous to the streambed, but outside of the ordinary high water marks, are not considered part of the streambed.
structure	An object that is arranged in a definite pattern of organization. Examples of structures include, without limitation, any pier, boat dock, boat ramp, wharf, dolphin, weir, boom, breakwater, bulkhead, revetment, riprap, jetty, artificial island, artificial reef, permanent mooring structure, power transmission line, permanently moored floating vessel, piling, aid to navigation, or any other manmade obstacle or obstruction.

Term	Definition
sulfur dioxide (SO <sub>2</sub> )	A strong-smelling, colorless gas formed by the combustion of fossil fuels. Power plants, which may use coal or oil high in sulfur content, can be major sources of SO <sub>2</sub> , which is a criteria pollutant. SO <sub>2</sub> and other sulfur oxides contribute to acid deposition.
surficial	Material at or near the surface.
taxon (pl. taxa)	A taxonomic entity (species, subspecies, or variety) or a group of such entities.
texture	The visual manifestation of the interplay of light and shadow created by variations in the surface of an object.
threatened species	Plant and wildlife species likely to become endangered in the foreseeable future.
transportation control measure (TCM)	Any measure that is specifically identified and committed to in the applicable implementation plan that is either one of the types listed in Clean Air Act § 108, or any other measure to reduce emissions or concentrations of air pollutants from transportation sources by reducing vehicle use or changing traffic flow or congestion conditions.
transportation improvement plan	A staged, multiyear, intermodal program of transportation projects that is consistent with the metropolitan transportation plan.
tributary	A "tributary," as defined in the <i>Rapanos</i> guidance document, means a natural, man-altered, or man-made waterbody that carries directly or indirectly into a traditional navigable water. For the purposes of determining significant nexus with a traditional navigable water, a "tributary" is the entire reach of the stream that is of the same order (i.e., from the point of confluence, where two lower order streams meet to form the tributary, downstream to the point such tributary enters a higher order stream).
tuff	A rock made up of particles of volcanic ash, varying in size from fine sand to coarse gravel.
U.S. Army Corps of Engineers (USACE)	The agency that holds the responsibility for protection and development of the nation's water resources, including navigation, flood control, energy production through hydropower management, water supply storage, and recreation. <a href="http://www.iwr.usace.army.mil/">http://www.iwr.usace.army.mil/</a>
U.S. Environmental Protection Agency (EPA)	A key federal oversight agency with jurisdiction over many environmental issue areas, including compliance with NEPA. <a href="http://www.epa.gov/">http://www.epa.gov/</a>
U.S. Fish and Wildlife Service (USFWS)	Federal agency responsible for ensuring that any actions are not likely to jeopardize the continued existence of endangered or threatened species or result in the destruction or adverse modification of the critical habitat of such species. <a href="http://www.fws.gov/">http://www.fws.gov/</a>
unique and sensitive habitats	Areas that are especially important to regional wildlife populations or protected species that have other important biological characteristics (e.g., nesting areas and wetlands).
upland	Ground elevated above bottomlands (e.g., rolling hill terrain and terraces).
visual resource management (VRM)	The management of appearance of the features that make up the visible landscape.
volume (transportation)	The total number of vehicles that pass over a given point or section of a roadway during a given time interval. Volumes may be expressed in terms of annual, daily, hourly, or subhourly periods.
volume to capacity ratio (v/c)	The ratio of an intersection's traffic volume (v) to its capacity (c), with capacity defined as the theoretical maximum number of vehicles that can pass through an intersection during a specified time period. When the V/C ratio is 1.0, traffic is considered to be "at capacity" and there is traffic congestion. A V/C ratio of 1.0 or more translates to an LOS F.
water table	The surface in an unconfined aquifer (or in a confined aquifer) at which the pore water pressure is atmospheric.

Term	Definition
waterbody	A waterbody is a jurisdictional water of the U.S. that, during a year with normal patterns of precipitation, has water flowing or standing above ground to the extent that an ordinary high water mark (OHWM) or other indicators of jurisdiction can be determined, as well as any wetland area (see 33 CFR 328.3(b)). If a jurisdictional wetland is adjacent—meaning bordering, contiguous, or neighboring—to a jurisdictional waterbody displaying an OHWM or other indicators of jurisdiction, that waterbody and its adjacent wetlands are considered together as a single aquatic unit (see 33 CFR 328.4(c)(2)). Examples of “waterbodies” include streams, rivers, lakes, ponds, and wetlands.
Waters of the United States	<p>(1) All waters that are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters that are subject to the ebb and flow of the tide;</p> <p>(2) All interstate waters, including interstate wetlands;</p> <p>(3) All other waters, such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use, degradation or destruction of which could affect interstate or foreign commerce including any such waters:</p> <p>(i) Which are or could be used by interstate or foreign travelers for recreational or other purposes; or</p> <p>(ii) From which fish or shellfish are or could be taken and sold in interstate or foreign commerce; or</p> <p>(iii) Which are used or could be used for industrial purpose by industries in interstate commerce;</p> <p>(4) All impoundments of waters otherwise defined as waters of the U.S. under the definition;</p> <p>(5) Tributaries of waters identified in paragraphs (a)(1)-(4) of this section;</p> <p>(6) The territorial seas;</p> <p>(7) Wetlands adjacent to waters (other than waters that are themselves wetlands) identified in paragraphs (a)(1)–(6) of this section, (waste treatment systems, including treatment ponds or lagoons designed to meet the requirements of CWA [other than cooling ponds as defined in 40 CFR 123.11(m) which also meet the criteria of this definition] are not waters of the U.S.) and</p> <p>(8) Waters of the U.S. do not include prior converted cropland. Notwithstanding the determination of an area’s status as prior converted cropland by any other federal agency, for the purposes of the CWA, the final authority regarding CWA jurisdiction remains with EPA.</p> <p><a href="http://www.epa.gov/owow/wetlands/guidance/CWAwaters.html">http://www.epa.gov/owow/wetlands/guidance/CWAwaters.html</a></p>
watershed	A drainage or catchment area of a stream or lake.
wetlands	Areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas. The criteria for determining wetlands is set forth in the USACE Wetlands Delineation Manual (1987) and relevant Regional Supplements (Arid West, December 2006).
zoning	The division of a municipality (or county) into districts for the purpose of regulating land use, bulk of building, required yards, necessary off-street parking, and other prerequisites to development. Zones are generally shown on a map and the text of the zoning ordinance specifies requirements for each zoning category.

## **Appendix D      Environmental Commitment Record**



Add One High Occupancy Vehicle Lane in Each Direction on the San Bernardino Freeway (Interstate 10)  
from Puente Avenue to State Routes 57/71 in Los Angeles County

EA 1170U1/119341

07-LA-10 PM 33.2/42.4

Log No.	Commitment Type	Responsible Party	Monitoring Frequency	Implementation/Monitoring Phase	SSP# / NSSP#	Env Doc/ Permits/ Specs/ Plans/ Estimates REFERENCE	Commitment Measure	Completed Signature Page	Remarks
<b>AESTHETICS AND VISUAL RESOURCES</b>									
1-1	Retaining Walls	Caltrans Engineering	To Be Determined	Design & Construction		EIR, Ch 3, Sec. 3.1.5, MM VA-1	During the project design stage, architectural detailing will be applied to the retaining walls, including textures and patterns.		
1-2	Vegetation Protection	Caltrans Engineering and Construction	To Be Determined	Design & Construction		EIR, Ch 3, Sec. 3.1.5, MM VA-2	During the project design and construction stages, existing vegetation in the corridor will be saved and protected to the extent that is feasible.		
1-3	Vegetation Replacement	Caltrans Engineering	To Be Determined	Design & Construction		EIR, Ch 3, Sec. 3.1.5, MM VA-3	During the project design stage, and to the extent feasible, skyline trees will be included in the new plantings to replace those removed by construction.		
1-4	Soundwalls	Caltrans Engineering	To Be Determined	Design & Construction		EIR, Ch 3, Sec. 3.1.5	Caltrans will design aesthetic themes on soundwalls and landscape.		
1-5	Graffiti Prevention	Caltrans Engineering	To Be Determined	Design & Construction		EIR, Ch 3, Sec. 3.1.5	Caltrans will work with the City of West Covina on its request for graffiti prevention measures.		
1-6	Soundwalls	Caltrans Engineering	To Be Determined	Design & Construction		EIR, Ch 3, Sec. 3.1.5	Caltrans, when feasible, will arrange for vines on soundwalls as requested by the City.		
1-7	Vegetation Replacement	Caltrans Engineering	To Be Determined	Design & Construction		EIR, Ch 3, Sec. 3.1.5	Caltrans will replace vegetation when feasible.		
1-8	Vegetation Replacement	Caltrans Engineering	To Be Determined	Design & Construction		EIR, Ch 3, Sec. 3.1.5	Caltrans, where reasonable and feasible, will replace trees within Caltrans ROW project limits in the City of West Covina.		
<b>TRAFFIC</b>									
2-1	Traffic Management Plan	Caltrans Traffic	To Be Determined	Construction & Post-Construction		EIR, Ch 3, Sec. 3.2.5	<p>A TMP will be prepared to offset the effects of traffic congestion and access during construction on the freeway, ramps, and local streets. In addition to the standard requirements of a TMP, special focus will be placed on improving transit services during construction, as well as traffic incident management. Reducing the frequency of incidents, detection time, response time, and clearance time will all be addressed in the TMP. The TMP will include a public awareness program, including informational sources such as radio, Caltrans overhead changeable message board, and Internet. Some best practices to be considered include:</p> <ul style="list-style-type: none"> <li>• Designated towing services for keeping the work zone free of disabled vehicles;</li> <li>• Contractor-provided 24-hour-per-day monitoring of traffic control devices;</li> <li>• Establishing proper communication channels with "first responder" agencies; and</li> <li>• Providing safe pullout locations for disabled vehicles.</li> </ul>		
2-2	Construction Timing	Caltrans Engineering	To Be Determined	Construction		EIR, Ch 3, Sec. 3.2.5	Area residents will be regularly informed through public outreach of proposed project development and construction plans prior to and during the construction period so that they are aware of the construction timing, traffic/transit detour plans, and lane/road closures.		

Log No.	Commitment Type	Responsible Party	Monitoring Frequency	Implementation/Monitoring Phase	SSP# / NSSP#	Env Doc/ Permits/ Specs/ Plans/ Estimates REFERENCE	Commitment Measure	Completed Signature Page	Remarks
2-3	Ramps	Caltrans Engineering	To Be Determined	Construction		EIR, Ch 3, Sec. 3.2.5	At the northbound Vincent Avenue approach to eastbound I-10 on-ramp, modify the existing shared (through/right) lane to an exclusive through lane and add an exclusive full right turn lane.		
2-4	Engineering	Caltrans Engineering	To Be Determined	Design & Construction		EIR, Ch 3, Sec. 3.2.5	Increase the capacity of the eastbound I-10 on-ramp from northbound Vincent Avenue through the addition of a lane and the relocation of the proposed ramp meter approximately 250 feet downstream.		
2-5	Construction Timing	Caltrans Engineering	To Be Determined	Construction		EIR, Ch 3, Sec. 3.2.5	Caltrans will periodically coordinate with the transit companies to discuss changes in the construction operations and potential impacts to the transit providers. Caltrans will coordinate all street, connector, and ramp closures with the transit service. Wherever possible, these closures should not take place during the peak commute hours. In addition, consecutive ramp and street closures will be avoided.		
2-6	Ramps	Caltrans Engineering	To Be Determined	Design & Construction		EIR, App H (Environmental Commitment Letter)	Caltrans will work with the City of West Covina to ensure that as few ramps as possible are closed at any one time.		
2-7	Traffic Management Plan	Caltrans Traffic	To Be Determined	Design & Construction		EIR, App H (Environmental Commitment Letter)	Traffic Management Plan (TMP) will identify any signal improvements and ramp upgrades needed as a result of the proposed project.		
<b>NOISE AND VIBRATION</b>									
3-1	Noise Impacts	Caltrans Environmental	To Be Determined	Environmental		EIR, App H (Environmental Commitment Letter)	Caltrans expects to conduct additional environmental documentation for this project related to noise impacts and make determinations based on the outcome of those future studies.		
<b>BIOLOGICAL RESOURCES</b>									
4-1	Vegetation Replacement	Bio	To Be Determined	Construction		EIR, Ch 3, Sec. 3.5.5	Removal of all trees should occur between September 15 and January 15 to avoid the breeding season. If tree removal must occur during the breeding season, then a qualified biologist shall be required to survey all trees for presence of active nests scheduled for removal. Discovery of nests with eggs or unfledged young birds will necessitate establishing an off-limits buffer around particular trees. The size of that buffer shall be determined in consultation with CDFG biologists. Disturbance potentially caused by various tools and equipment shall be considered in light of the nesting requirements of birds found in the zone of construction.		
4-2	Vegetation Replacement	Bio	To Be Determined	Construction		EIR, Ch 3, Sec. 3.5.5	Trees of both toyon and black walnut species will be planted from suitable nursery stock, three replacements for each natural tree removed. The stream course itself does not afford enough ground inside the ROW fence to accommodate more than two or three trees, thus the remainder would need to go into locations on Kellogg Hill where wider ROW exists.		
<b>CULTURAL RESOURCES</b>									
5-1	Historical Resources	Archaeologist	To Be Determined	Construction		EIR, Ch 3, Sec. 3.6.5, MM CUL-1	In the unlikely event cultural materials are discovered during construction, all earth-moving activity within and around the immediate discovery area will be diverted until a qualified archaeologist can assess the nature and significance of the find.		

Log No.	Commitment Type	Responsible Party	Monitoring Frequency	Implementation/Monitoring Phase	SSP# / NSSP#	Env Doc/ Permits/ Specs/ Plans/ Estimates REFERENCE	Commitment Measure	Completed Signature Page	Remarks
5-2	Paleontological Resources	Paleontologist	To Be Determined	Construction		EIR, Ch 3, Sec. 3.6.5, MM CUL-2	A qualified principal paleontologist (MS or Ph.D. in paleontology or geology familiar with paleontological procedures and techniques) will be retained to be present to consult with grading and excavation contractors at pregrading meetings.		
5-3	Paleontological Resources	Paleontologist	To Be Determined	Construction		EIR, Ch 3, Sec. 3.6.5, MM CUL-3	Paleontological monitor, under the direction of the qualified principal paleontologist, will be onsite to inspect cuts for fossils during original grading involving sensitive geologic formations.		
5-4	Paleontological Resources	Paleontologist	To Be Determined	Construction		EIR, Ch 3, Sec. 3.6.5, MM CUL-4	When fossils are discovered, the paleontologist, or paleontological monitor, will recover them. Construction work in these areas will be halted or redirected to allow recovery of fossil remains in a timely manner.		
5-5	Archaeological Resources	Paleontologist	To Be Determined	Construction		EIR, Ch 3, Sec. 3.6.5, MM CUL-5	Fossil remains collected during the monitoring and salvage portion of the mitigation program will be cleaned, repaired, sorted, and cataloged.		
5-6	Paleontological Resources	Paleontologist	To Be Determined	Post-Construction		EIR, Ch 3, Sec. 3.6.5, MM CUL-6	Prepared fossils, along with copies of all pertinent field notes, photos, and maps, will then be deposited in a scientific institution with paleontological collections.		
5-7	Cultural Resources	Paleontologist	To Be Determined	Post-Construction		EIR, Ch 3, Sec. 3.6.5, MM CUL-7	A final report will be completed that outlines the results of the mitigation program.		
5-8	Human Remains	Archaeologist	To Be Determined	Construction		EIR, Ch 3, Sec. 3.6.5, MM CUL-8	In the unlikely event human remains are discovered, State Health and Safety Code Section 7050.5 states that further disturbances and activities shall cease in any area or nearby area suspected to overlie remains, and the County Coroner contacted. Pursuant to Public Resources Code Section 5097.98, if the remains are thought to be Native American, the coroner will notify the Native American Heritage Commission (NAHC) who will then notify the Most Likely Descendent (MLD). At this time, the person who discovered the remains will contact Gary Iverson, Environmental Chief, so that they may work with the MLD on the respectful treatment and disposition of the remains. Further provisions of PRC 5097.98 are to be followed as applicable.		
<b>GEOLOGY, SOILS, AND SEISMICITY</b>									
6-1	Retaining Walls	Caltrans Engineering	To Be Determined	Construction		EIR, Ch 3, Sec. 3.7.5	Retaining walls will be included in the project design for the Kellogg Hill area where ROW constraints do not allow slopes to be cut parallel to the existing slope ratios. The proposed project may include other design features where determined necessary to minimize the potential for losses due to possible future slope failure activity. Retaining walls will be designed and constructed in a manner that satisfies both State and Federal standards and requirements.		
6-2	Retaining Walls	Caltrans Engineering	To Be Determined	Construction		EIR, App H (Environmental Commitment Letter)	Caltrans will make sure that all retaining wall footings between 289+00 and 362+00 be Cast in Drilled Hole (CIDH).		
6-3	Geotechnical Studies	Caltrans Engineering	To Be Determined	Environmental		EIR, App H (Environmental Commitment Letter)	Caltrans will conduct a geotechnical study and send to Forest Lawn.		
6-4	Engineering	Caltrans Engineering	To Be Determined	Environmental		EIR, App H (Environmental Commitment Letter)	Caltrans will notify Forest Lawn prior to final plans and provide an opportunity for a meeting.		

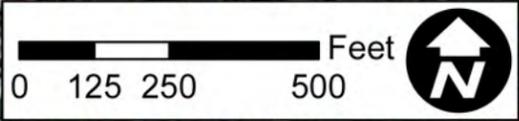
Log No.	Commitment Type	Responsible Party	Monitoring Frequency	Implementation/Monitoring Phase	SSP# / NSSP#	Env Doc/ Permits/ Specs/ Plans/ Estimates REFERENCE	Commitment Measure	Completed Signature Page	Remarks
<b>HAZARDOUS WASTE/MATERIALS</b>									
7-1	Groundwater	Caltrans Engineering	To Be Determined	Construction		EIR, Ch 3, Sec. 3.8.5, MM HAZ-1	Groundwater is not expected to be disturbed and/or disposed during construction activities. If groundwater needs to be disturbed and/or extracted during construction, then appropriate disposal and treatment (if required) options will be determined through coordination with the regulatory agencies in order to prevent possible cross contamination. If contamination is found, then a work plan shall be prepared by a registered geotechnical engineer to protect the health of construction workers.		
7-2	ADL	Caltrans Engineering	To Be Determined	Construction		EIR, Ch 3, Sec. 3.8.5, MM HAZ-2	ADL soil management will be evaluated for the applicability of the lead variance issued to Caltrans by DTSC.		
7-3	ACM & LBP	Caltrans Engineering	To Be Determined	Construction		EIR, Ch 3, Sec. 3.8.5, MM HAZ-3	Bridges and structures shall be surveyed to screen for ACMs and LBP prior to construction activities. If ACMs are found, then the contractor will comply with the SCAQMD Rule 1403 notification and removal processes. In addition, disposal of ACMs will be handled in compliance with local, state, and federal requirements. If LBP and/or heavy metals are found, then the contractor shall comply with local, state, and federal rules and regulations for notification, removal process, and disposal activities.		
7-4	Hazardous Materials	Caltrans Engineering	To Be Determined	Construction		EIR, Ch 3, Sec. 3.8.5, MM HAZ-4	Any hazardous materials or wastes encountered before or during the demolition stage of the proposed project shall be disposed according to current regulatory guidelines.		
7-5	Health and Safety Plan (HSP)	Caltrans Engineering	To Be Determined	Construction		EIR, Ch 3, Sec. 3.8.5, MM HAZ-5	A worker Health and Safety Plan (HSP) that meets the provisions of California Code of Regulations (Title 22, Section 5192) shall be developed by the proposed project contractor. HSP procedures will address the identification, excavation, handling, and disposal of hazardous wastes and materials that may be found in construction areas.		
7-6	Thermoplastic & Yellow Paint	Caltrans Engineering	To Be Determined	Construction		EIR, Ch 3, Sec. 3.8.5, MM HAZ-6	Removed thermoplastic and yellow paint will be disposed at an appropriate landfill in accordance with local, state, and federal laws.		
<b>HYDROLOGY AND WATER QUALITY</b>									
8-1	Flood Control	Caltrans Engineering	To Be Determined	Construction		EIR, Ch 3, Sec. 3.9.5	As part of the I-10 HOV Lane Project final design, Caltrans will conduct a detailed hydrologic analysis to determine if any flood control devices will require modification to protect the project site and facility from design flood levels. The final design of these flood control devices will be coordinated with all affected cities and the LACDPW.		
8-2	FEMA Coordination	Caltrans Engineering	To Be Determined	Environmental		EIR, Ch 3, Sec. 3.9.5	Caltrans will coordinate with FEMA prior to completion of the final project design to confirm any necessary revisions to the FEMA Flood Insurance Rate Maps or FEMA Special Flood Hazard Areas maps.		

Log No.	Commitment Type	Responsible Party	Monitoring Frequency	Implementation/Monitoring Phase	SSP# / NSSP#	Env Doc/ Permits/ Specs/ Plans/ Estimates REFERENCE	Commitment Measure	Completed Signature Page	Remarks
8-3	Stormwater Management Plan	Caltrans Engineering	To Be Determined	Construction		EIR, Ch 3, Sec. 3.9.5	The Caltrans SWMP describes BMPs and practices to reduce the discharge of pollutants associated with the stormwater drainage systems of state highways, facilities, and activities. The completed project plans would incorporate all necessary Maintenance BMPs (Category IA), Design Pollution BMPs (Category IB), and Treatment BMPs (Category III) to meet the maximum extent practicable requirements. As part of the project design development, a Storm Water Data Report (SWDR) will be prepared to document the decision-making process relating to the selection and implementation of BMPs. The SWDR will be updated as the project progresses towards final design.		
8-4	BMPs	Caltrans Engineering	To Be Determined	Construction		EIR, Ch 3, Sec. 3.9.5	BMPs to be incorporated into the project during construction will be required for soil stabilization (erosion control), sediment control, temporary tracking control, wind erosion control, and non-stormwater runoff management.		
8-5	Construction Site Monitoring Plan (CSMP)	Caltrans Engineering	To Be Determined	Construction		EIR, Ch 3, Sec. 3.9.5	A written site-specific Construction Site Monitoring Plan (CSMP) will be developed prior to commencement of construction activities, and it shall be revised as necessary to reflect project revisions. The CSMP will be developed to meet the specific requirements and objectives identified in the General Permit for the proposed project's risk level to be identified in the SWPPP. The CSMP shall include monitoring procedures and instructions, location maps, forms, and checklists, and a description of the project site's watershed, including drainage patterns and all site discharge locations. The CSMP will include specific details about sample collection frequency; sample constituents; sample collection methodologies, including clean sample collection techniques; and use of pH and turbidity field meters and field quality assurance/quality control.		
<b>LAND USE</b>									
9-1	Real Estate Acquisition Management Plan (RAMP)	Caltrans Right of Way	To Be Determined	Environmental & Constuction		EIR, Ch 3, Sec. 3.10.5	A Real Estate Acquisition Management Plan (RAMP) shall be developed adhering to the requirements pertaining to land acquisition for projects funded by FTA as prescribed in Volume 49 CFR Part 24, Uniform Relocation Assistance and Real Property Acquisition Policies Act for Federal and Federally Assisted Programs, and the California Relocation Assistance Act, 1970. All acquisitions shall follow state and local guidelines for compliance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act.		
9-2	ROW	Caltrans Right of Way	To Be Determined	Design		EIR, App H (Environmental Commitment Letter)	Reduce right-of-way needs within the City of West Covina.		
9-3	CHP Enforcement Area	Caltrans Engineering	To Be Determined	Design		EIR, App H (Environmental Commitment Letter)	Maximize California Highway Patrol (CHP) enforcement area while creating the least impact to the surrounding resources in the City of West Covina.		
9-4	Parking Acquisitions	Caltrans Engineering	To Be Determined	Design		EIR, App H (Environmental Commitment Letter)	Reduce on-street parking acquisitions within the City of West Covina so that that they only occur on Garvey South near the West Covina City Hall.		

Log No.	Commitment Type	Responsible Party	Monitoring Frequency	Implementation/Monitoring Phase	SSP# / NSSP#	Env Doc/ Permits/ Specs/ Plans/ Estimates REFERENCE	Commitment Measure	Completed Signature Page	Remarks
<b>PUBLIC SERVICES AND UTILITIES</b>									
10-1	Emergency Service Providers	Caltrans Engineering	To Be Determined	Construction		EIR, Ch 3, Sec. 3.12.5	Emergency service providers will be alerted in advance of any temporary road closures and delays so they have adequate time to make appropriate accommodations to ensure prompt emergency response times that fulfill their responsibilities and defined service objectives.		
10-2	Utility Providers	Caltrans Engineering	To Be Determined	Construction		EIR, Ch 3, Sec. 3.12.5	Utility providers will be made aware of project developments and be involved in planning of utility rerouting, identification of potential conflicts, and formulation of strategies to deal with unanticipated problems that may arise once construction has begun.		

## **Appendix E      Recommended Noise Barrier Locations**



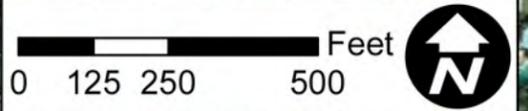


Begin SW 1758

Begin SW 1775

Begin SW 1770

End SW 1758



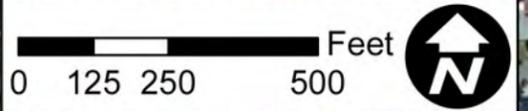
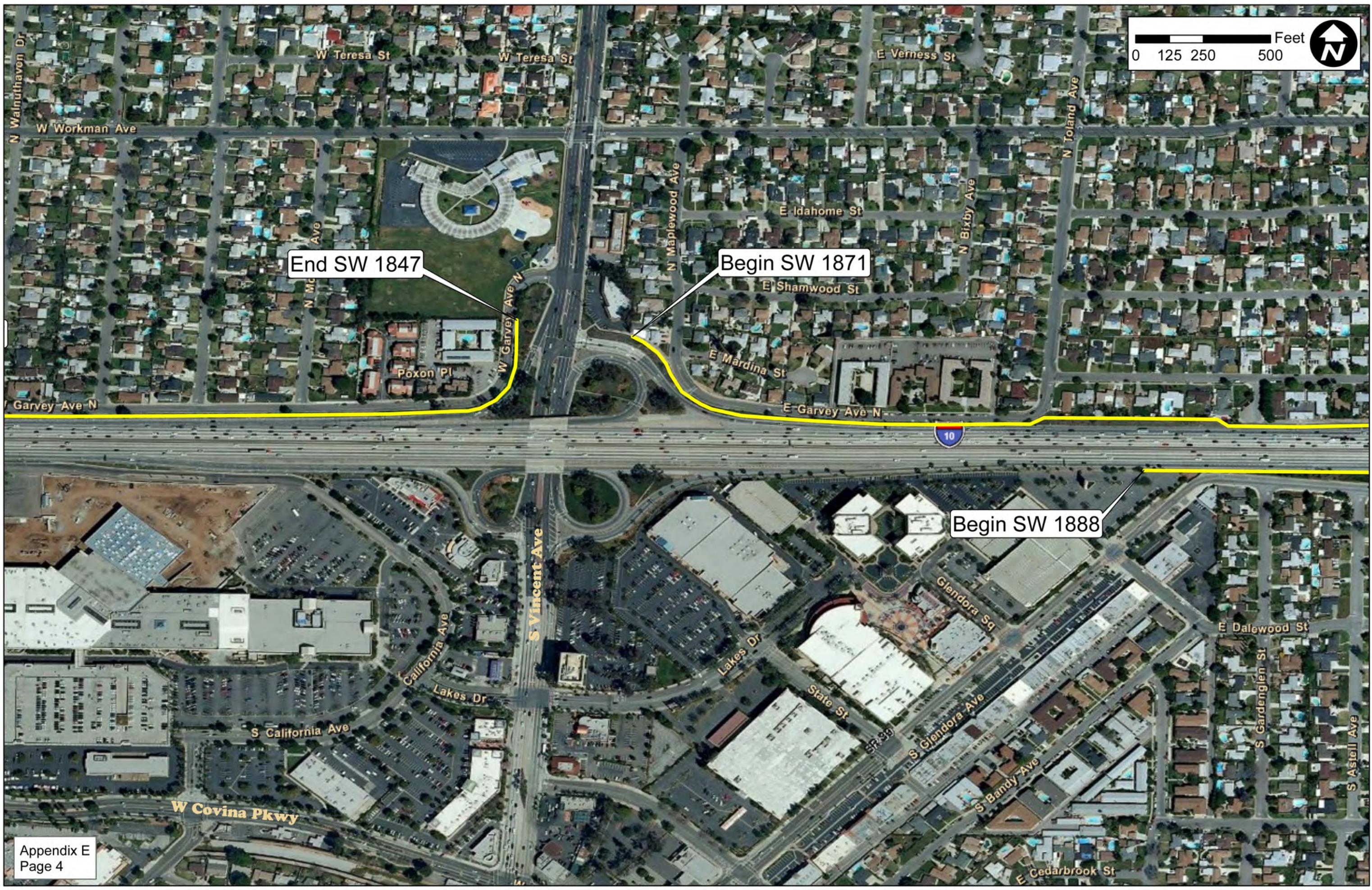
End SW 1775

Begin SW 1805

End SW 1805

End SW 1770

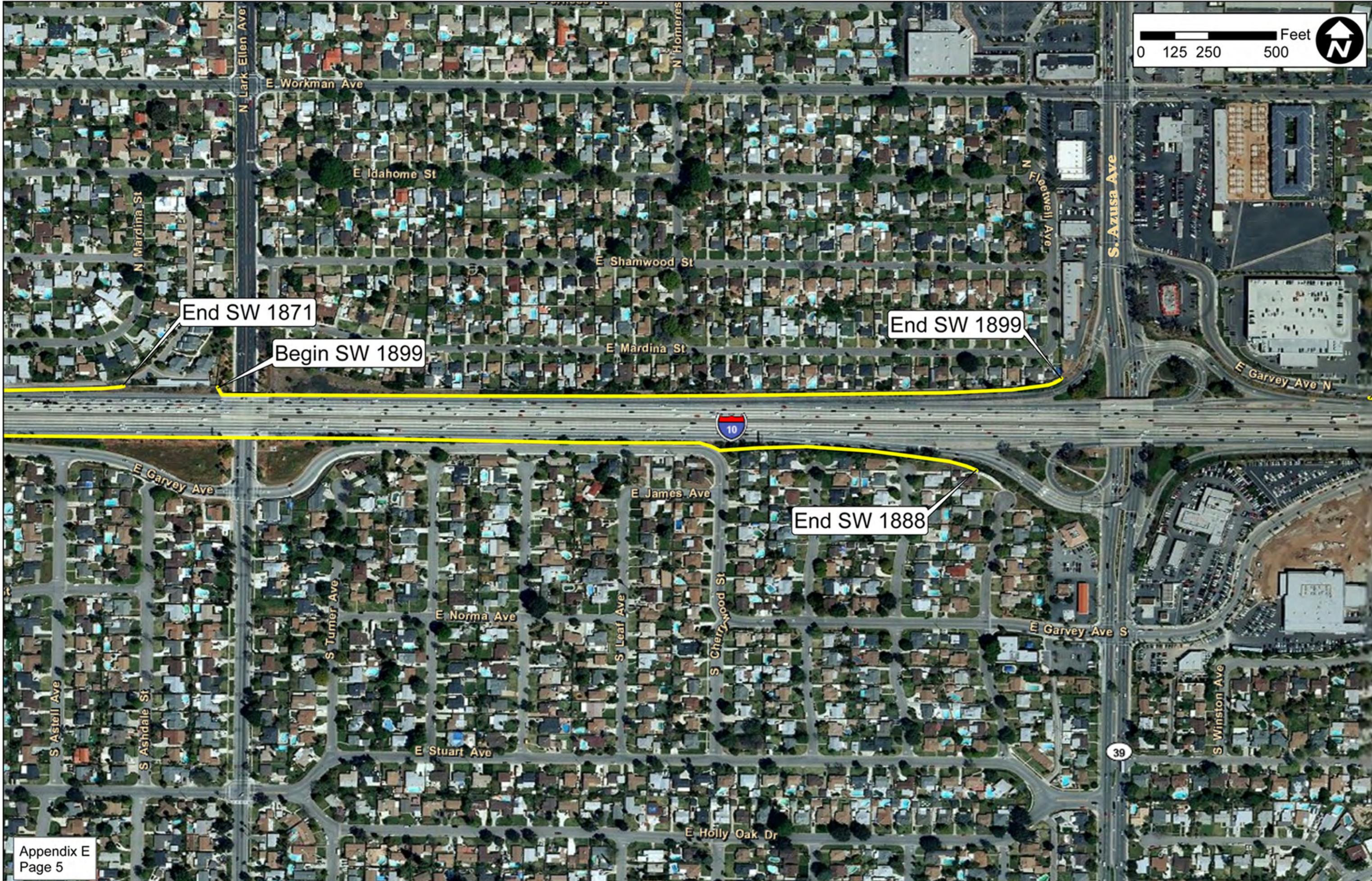
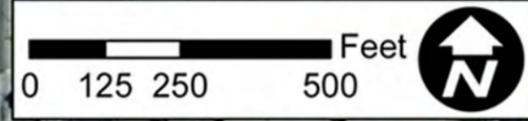




End SW 1847

Begin SW 1871

Begin SW 1888

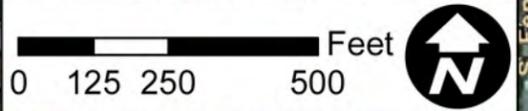
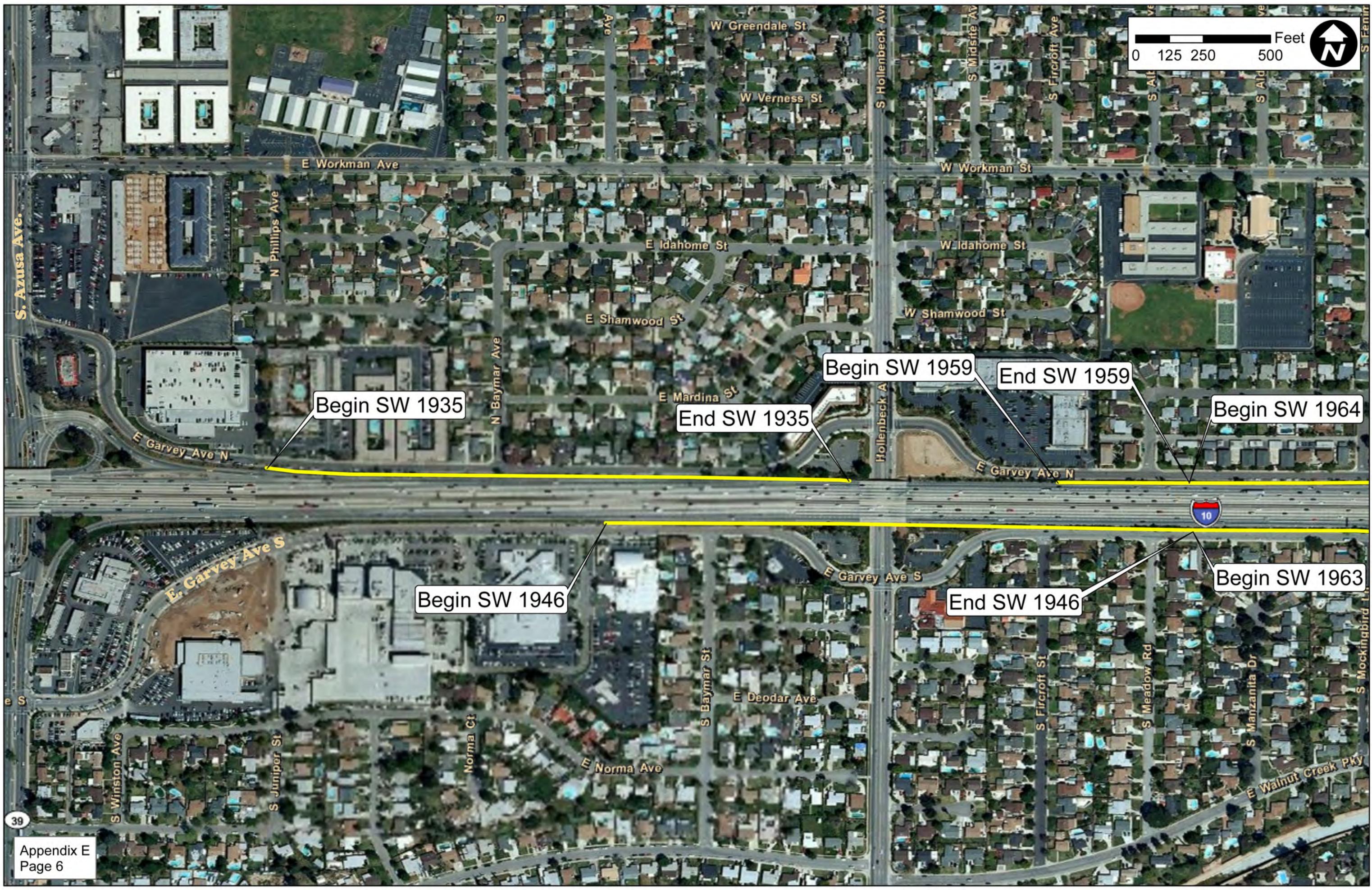


End SW 1871

Begin SW 1899

End SW 1899

End SW 1888



Begin SW 1935

End SW 1935

Begin SW 1959

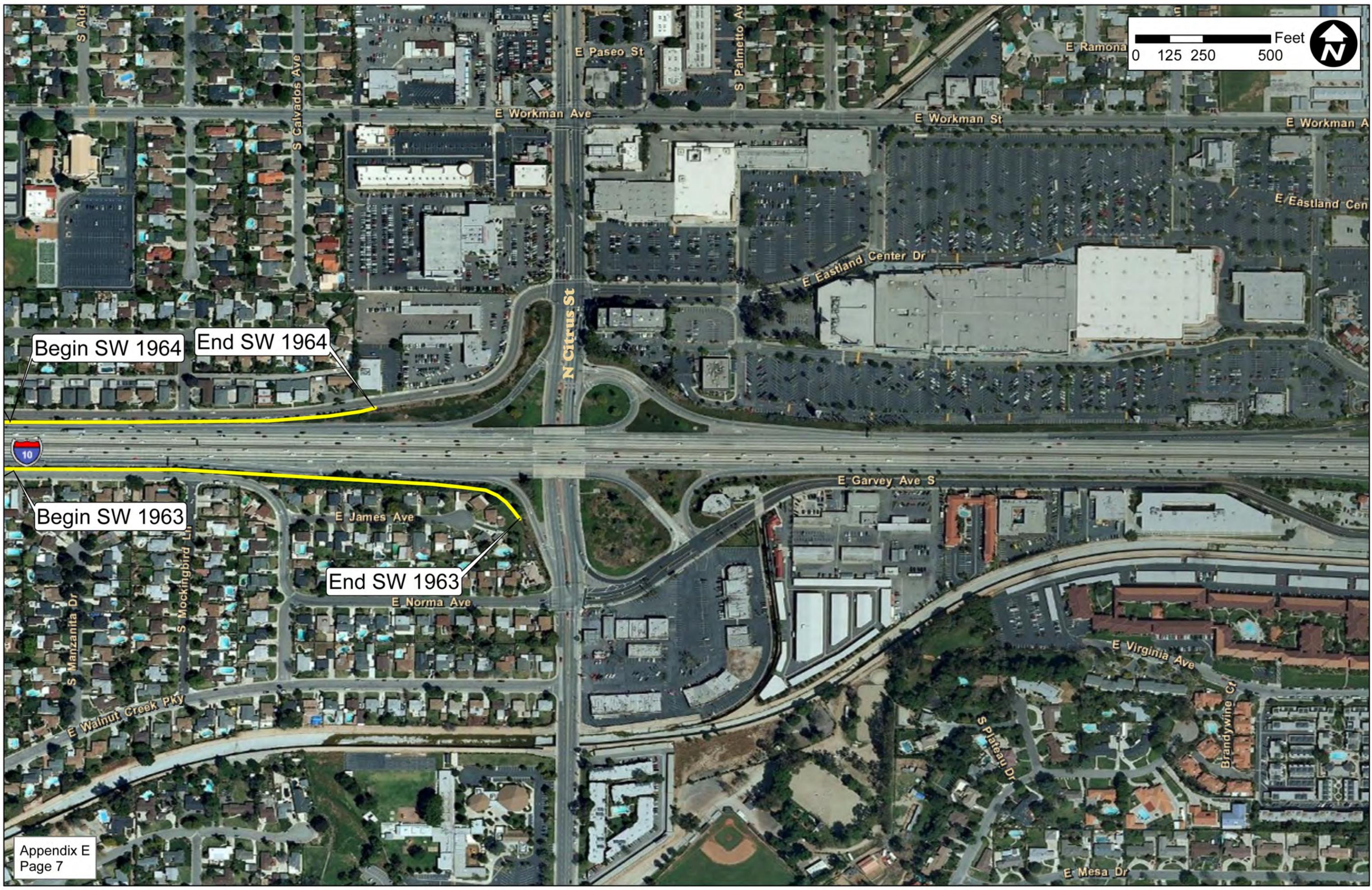
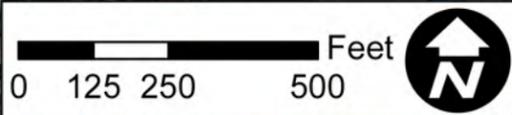
End SW 1959

Begin SW 1964

Begin SW 1946

End SW 1946

Begin SW 1963



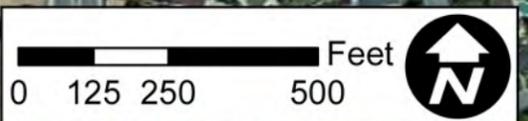
Begin SW 1964

End SW 1964



Begin SW 1963

End SW 1963



Begin SW 2018

End SW 2018

Begin SW 2037



Begin SW 2052

Begin SW 2049

End SW 2037

End SW 2052

Begin SW 2056

End SW 2056

End SW 2049

Begin SW 2060

Begin SW 2055

End SW 2060

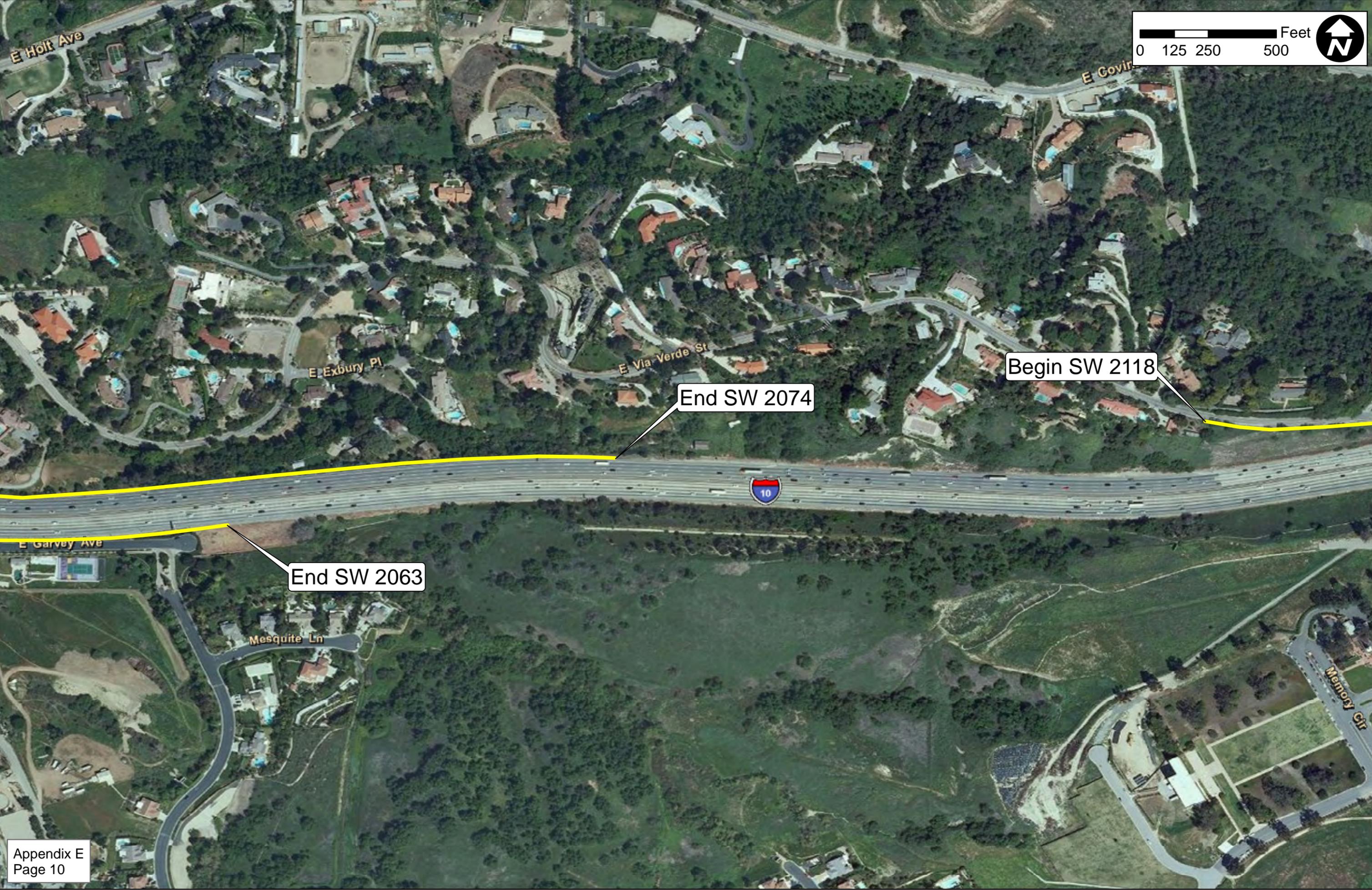
End SW 2055

Begin SW 2059

End SW 2059

Begin SW 2063

Begin SW 2074



Begin SW 2118

End SW 2074

End SW 2063

E Holt Ave

E Govin

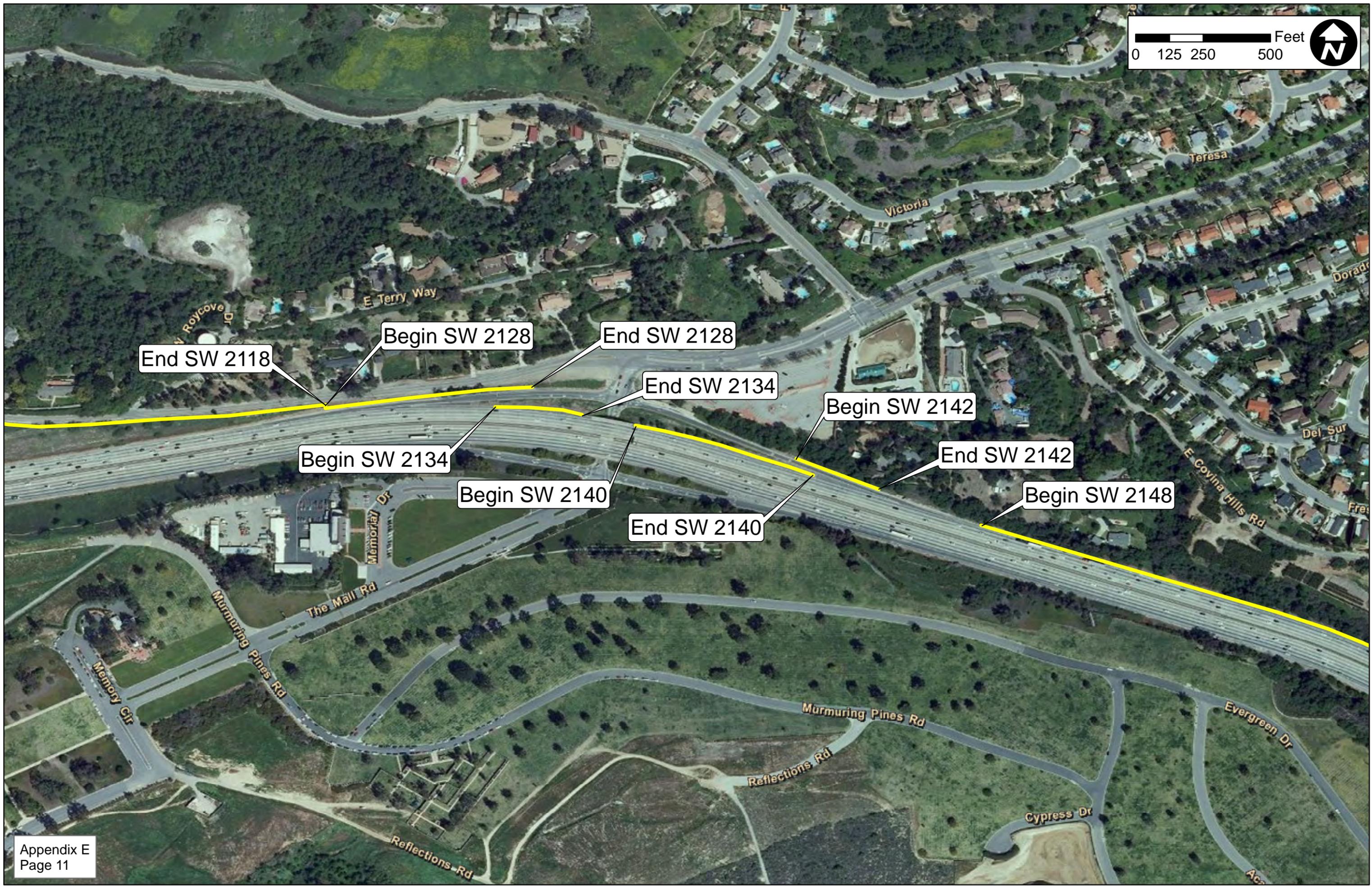
E Exbury Pl

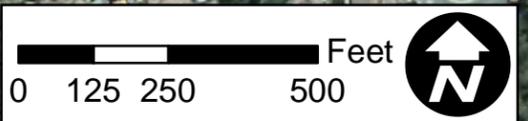
E Via Verde St

E Garvey Ave

Mesquite Ln

Memory Cir





End SW 2148

## **Appendix F      List of Acronyms and Abbreviations**

$\mu\text{g}/\text{m}^3$	micrograms per cubic meter
AAM	Annual Arithmetic Mean
AASHTO	American Association of State Highway and Transportation Officials
ACHP	Advisory Council on Historic Preservation
ACMs	asbestos-containing materials
ADA	Americans with Disabilities Act
ADL	aerially deposited lead
ADT	average daily traffic
AEP	Association of Environmental Professionals
APE	Area of Potential Effects
AQMP	Air Quality Management Plan
ASR	Archaeological Survey Report
ASTM	American Society for Testing and Materials
BAT/BCT	Best Available Technology economically available/Best Conventional Pollutant Control Technology
bgs	below ground surface
BMPs	Best Management Practices
BPUSD	Baldwin park Unified School District
BSA	Biological Study Area
CAA	Clean Air Act
CAAs	California Air Act Amendments
CAAQS	California Ambient Air Quality Standards
Caltrans	California Department of Transportation
CARB	California Air Resources Board
CBC	California Building Code
CBD	Central Business District
CCAA	California Clean Air Act
CCR	California Code of Regulations
CDFG	California Department of Fish and Game
CDMG	California Division of Mines and Geology

---

CEQA	California Environmental Quality Act
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act of 1980
CERFA	Community Environmental Response Facilitation Act of 1992
CFR	<i>Code of Federal Regulations</i>
cfs	cubic feet per second
CHP	California Highway Patrol
CIWMB	California Integrated Waste Management Board
CMA	Congestion Management Agency
CMP	Congestion Management Program
CNDDB	California Natural Diversity Database
CNPS	California Native Plant Society
CO	carbon monoxide
CO <sub>2</sub>	carbon dioxide
CTC	California Transportation Commission
CVUSD	Covina-Valley Unified School District
CWA	Clean Water Act
cy	cubic yards
dB	decibel
dba	A-weighted decibels
DEIR	Draft Environmental Impact Report
Department	California Department of Transportation
DOT	United States Department of Transportation
DPM	diesel particulate matter
DSA	disturbed soil area
DTSC	Department of Toxic Substances Control
EO	Executive Order
EPA	United States Environmental Protection Agency
ESA	Endangered Species Act
ETA	Ecological Transition Area
F	Fahrenheit
FEMA	Federal Emergency Management Agency

FHWA	Federal Highway Administration
FIFRA	Federal Insecticide, Fungicide, and Rodenticide Act
FONSI	Finding of No Significant Impact
FTA	Federal Transit Administration
GHG	greenhouse gas
GWP	global warming potential
HAPs	hazardous air pollutants
HCM	Highway Capacity Manual
HCP	Habitat Conservation Plan
HOV	high-occupancy vehicle
HPSR	Historic Property Survey Report
HSAs	hydrologic subareas
HSP	Health and Safety Plan
I-10	Interstate Route 10
I-210	Interstate Route 210
I-605	Interstate Route 605
I-710	Interstate Route 710
IPCC	Intergovernmental Panel on Climate Change
IS/EA	Initial Study/Environmental Assessment
ISA	Initial Site Assessment
ISTEA	Intermodal Surface Transportation Efficiency Act
JPA	Joint Powers Authority
LACDPW	Los Angeles County Department of Public Works
LACFCD	Los Angeles County Flood Control District
LBP	lead-based paint
LOS	level of service
LRTP	Long Range Transportation Plan
LUE	Land Use Element
M	magnitude
MATES	Multiple Air Toxics Exposure Study
MCE	maximum credible earthquake
Metro	Los Angeles County Metropolitan Transportation Authority

---

mg/m <sup>3</sup>	milligrams per cubic meter
MLD	Most Likely Descendent
MND	Mitigated Negative Declaration
mph	miles per hour
MPO	Metropolitan Planning Organization
MS4	Municipal Separate Storm Sewer System
MSAT	mobile source air toxics
msl	mean sea level
MSW	municipal solid waste
MUTCD	Manual on Uniform Traffic Control Devices
MVM	million vehicle miles
NAAQS	National Ambient Air Quality Standards
NAC	Noise Abatement Criteria
NAHC	Native American Heritage Commission
NES	Natural Environment Study
NHPA	National Historic Preservation Act of 1966
NO <sub>2</sub>	nitrogen dioxide
NOA	naturally occurring asbestos
NOAA	National Oceanic Atmospheric Administration
NOC	Notice of Construction
NOCC	Notice of Completion of Construction
NOI	Notice of Intent
NOP	Notice of Preparation
NO <sub>x</sub>	nitrogen oxides
NPDES	National Pollutant Discharge Elimination System
NPL	National Priorities List
NSR	Noise Study Report
O <sub>3</sub>	ozone
OPR	Governor's Office of Planning and Research
OSHA	Occupational Safety and Health Act
PA	Programmatic Agreement
Pb	lead

PHV	peak-hour volume
PM	particulate matter
PM	post mile
PM <sub>10</sub>	particulate matter less than 10 microns in diameter
PM <sub>2.5</sub>	particulate matter less than 2.5 microns in diameter
POAQC	Projects of Air Quality Concern
ppm	parts per million
PRC	Public Resources Code
PS&E	Plans, Specifications, and Estimate
PSR	Project Study Report
RAMP	Real Estate Acquisition Management Plan
RCRA	Resource Conservation and Recovery Act of 1976
RECs	recognized environmental conditions
ROW	right-of-way
RTIP	Regional Transportation Improvement Program
RTP	Regional Transportation Plan
RWQCB	Regional Water Quality Control Board
SAFETEA-LU	Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users
SCAB	South Coast Air Basin
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District
SCE	Southern California Edison
SEA	Significant Ecological Areas
SHPO	State Historic Preservation Officer
SO <sub>2</sub>	sulfur dioxide
SO <sub>4</sub> <sup>2-</sup>	sulfates
SP	State Implementation Plan
SR 57	State Route 57
SR 60	State Route 60
SR 71	State Route 71
SRA	source receptor area

---

STAA	Surface Transportation Assistance Act
STIP	State Transportation Improvement Program
SWDR	Storm Water Data Report
SWMP	Storm Water Management Plan
SWPPP	Storm Water Pollution Prevention Plan
SWRCB	State Water Resources Control Board
TACs	toxic air contaminants
TASAS	Traffic Accident Surveillance and Analysis System
TCE	temporary construction easement
TDCs	targeted design constituents
TDM	Transportation Demand Management
TeNS	Technical Noise Supplement
TMDL	total maximum daily load
TMP	Transportation Management Plan
TOD	transit-oriented development
tpd	tons per day
TSCA	Toxic Substances Control Act
TSM	Traffic System Management
UBC	Uniform Building Code
USACE	United States Army Corps of Engineers
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
USTs	underground storage tanks
V/C	volume to capacity
VMT	vehicle miles traveled
VOCs	volatile organic compounds
vpd	vehicles per day
WPCP	Water Pollution Control Plan
WQV	water quality volume

## **Appendix G List of Technical Studies**

### **GEOTECHNICAL**

*Geotechnical Investigation of the LA-10 HOV Project 1, LA-10 PM 28.0 to PM 42.4, Los Angeles County* (Prepared by Caltrans, District 7, 1993; Segments 1A, 2 and 3).

### **WATER RESOURCES**

*Improvements to Interstate 10 Construction of High Occupancy Vehicle (HOV) Lanes Between Puente Avenue and Citrus Avenue in the Cities of Baldwin Park and West Covina 07-LA-10-33.4/37.5 Water Quality Report* (Prepared by PBQ&D for Caltrans, District 7, August 1993, Segment 2).

*Improvements to Interstate 10, Construction of High Occupancy Vehicle (HOV) Lanes between Puente Avenue and Citrus Avenue, 07-LA-10-33.4/37.5. Floodplain Evaluation and Location Hydraulic Study* (Prepared by Caltrans, District 7, November 1993).

*I-10 High Occupancy Vehicle Lanes Project 07H003 Segment 3 (07-LA-10 37.5 to 42.4) Water Quality and Floodplains Technical Report* (Prepared by P&D Technologies for Caltrans, District 7, January 1995, Segment 3).

### **AIR QUALITY**

*Qualitative PM<sub>2.5</sub> and PM<sub>10</sub> Hot-Spot Analysis* (Prepared by Caltrans, District 7, August, 2009).

*Air Quality Report, Construct HOV Lanes and Soundwalls, Interstate 10 from Puente Avenue to SR-57/SR-71/I-210 Interchange*, (Prepared by Caltrans, District 7, August 2011).

### **NOISE**

*Final Traffic Noise Impact Report Route 10 (San Bernardino Freeway) HOV Project Route 605 to Route 10/57/210/71 Freeway Interchange* (Prepared by PBQ&D for Caltrans, District 7, October 25, 2001, Segments 1A, 2 and 3).

*Supplemental Traffic Noise Study Report, Route 10 HOV Project, from Route 605 to Route 10/57/210/71 Interchange, Forest Lawn Cemetery of Covina Hills, 07-LA-10-KP 50.1/68.2, EA 117080*. (Prepared by Caltrans, District 7, January 2, 2004).

*Traffic Noise Study Report (Environmental Re-Evaluation), Route 10 HOV Project, in Los Angeles County from Puente Avenue in Baldwin Park to State Route 57 in Pomona, 07-LA-10 PM 33.4/42.4, EA117081/119341* (Prepared by Caltrans, District 7, December 12, 2008).

### **RELOCATION**

*Relocation Impact Statement I-10 HOV Project (EA 1170U0)* (Prepared by Caltrans, District 7, March 2010).

**BIOLOGICAL RESOURCES**

*Natural Environment Study Report Provide High Occupancy Vehicle Lanes on Interstate 10 Between Puente and Citrus Avenues in Los Angeles County 07-LA-10-33.4/37.5* (Prepared by Myra L. Frank and Associates for Caltrans, District 7, January 1995; Segment 2).

*I-10 High Occupancy Vehicle Lanes Project 07H003 Segment 3 Biological Resources Technical Report* (Prepared by P&D Technologies for Caltrans, District 7, January 1995, Segment 3).

*NESR Reevaluation* (Prepared by Caltrans, District 7, September 8, 2000, Segments 1A, 2 and 3).

*Natural Environment Study – Minimal Impacts, Add One High Occupancy Vehicle Lane in Each Direction on the San Bernardino Freeway (Interstate 10) from Puente Avenue to State Routes 57/71 and Interstate 210 in Los Angeles County* (Prepared by Parsons for Caltrans, August 2011).

**LAND USE, AGRICULTURE, PARKS, UTILITIES AND SERVICES**

*Interstate 10 High Occupancy Vehicle Lane from Puente Avenue to the State Route 57/State Route 71/Interstate 210 Interchange, Community Impact Assessment* (Prepared by Parsons, September 2008).

**TRAFFIC**

*Interstate 10 High Occupancy Vehicle Lane from Puente Avenue to the State Route 57 / State Route 71 / Interstate Route 210 Interchange Non-Highway Transportation Technical Report* (Prepared by Parsons, December 2008).

*I-10 Proposed HOV Traffic Study from the Puente Ave Interchange (PM 33.4) to the SR-57/SR-71 Interchange (PM 42.4)* (Prepared by Parsons, April 2009).

**CULTURAL RESOURCES**

*Negative Archaeological Survey Report 07-LA-10 KP 31.2/42.4* (Prepared by Caltrans, District 7, September 28, 2000, Segments 1A, 2 and 3).

*Supplemental Historic Property Survey Report for the I-10 HOV Lane Between I-605 and the SR-57/SR-71/I-210 Interchanged in the Cities of Los Angeles, Baldwin Park, West Covina, Covina, San Dimas and Pomona in Los Angeles County, CA* (Prepared by Caltrans, District 7, May 2002, Segments 1, 2 and 3).

*Negative Archaeological Survey Report 07-LA-10 KP 31.2/42.4* (Prepared by Caltrans, District 7, September 2, 2002).

*Historic Property Survey Report* (Prepared by Caltrans, District 7, 2010).

## **VISUAL RESOURCES**

*Improvements to Interstate 10 Construction of High Occupancy Vehicle (HOV) Lanes Between Puente Avenue and Citrus Avenue in the Cities of Baldwin Park and West Covina 07-LA-10-33.4/37.5 Visual Impact Assessment Report* (Prepared by PBQ&D for Caltrans, District 7, August 1993, Segment 2).

*I-10 High Occupancy Vehicle Lanes Project 07H003 Segment 3 (07-LA-10 37.5 to 42.4) Visual Impact Study* (Prepared by P&D Technologies for Caltrans, District 7, January 1995, Segment 3).

## **HAZARDOUS MATERIALS**

*Initial Site Assessment Report, Route 10 HOV Lane Improvement Project, 725 S. Orange Avenue, Doctors Hospital, West Covina, California. Assessor's Parcel Number: 8474-001-012, Contract No. 07A2212. EA No 07-127221. Task Order No. 11* (Prepared by WorleyParsons, July 20, 2009).

*Initial Site Assessment Report, Route 10 HOV Lane Improvement Project, West Covina, California. 100 South California Avenue, Assessor's Parcel Number: 8474-007-030, Contract 07A2212 EA No. 1170U1. Task Order No. 11* (Prepared by WorleyParsons, September 4, 2009).

*Initial Site Assessment Report, Route 10 HOV Lane Improvement Project, West Covina, California. 10 Fashion Plaza, Assessor's Parcel Number: 8474-003-081, Contract 07A2212 EA No. 1170U1. Task Order No. 11* (Prepared by WorleyParsons, September 2009).

*Initial Site Assessment Report, Route 10 HOV Lane Improvement Project, 195 South Glendora Avenue, West Covina, California. Assessor's Parcel Number: 8474-011-046, Contract 07A2212 EA No. 1170U1. Task Order No. 11* (Prepared by WorleyParsons, October 26, 2009).

*Initial Site Assessment Report, Route 10 HOV Lane Improvement Project, 1900 West Garvey Avenue South, West Covina, California. Assessor's Parcel Number: 8474-007-037, Contract 07A2212 EA No. 1170U1. Task Order No. 11* (Prepared by WorleyParsons, November 16, 2009).

*Initial Site Assessment Report, Route 10 HOV Lane Improvement Project, 950 Lakes Drive, West Covina, California. Assessor's Parcel Number: 8474-011-028, Contract 07A2212 EA No. 1170U1. Task Order No. 11* (Prepared by WorleyParsons, February 17, 2010).

*Initial Site Assessment Report, Route 10 HOV Lane Improvement Project, 110 South California Avenue, West Covina, California. Assessor's Parcel Number: 8474-007-031, Contract 07A2212 EA No. 1170U1. Task Order No. 11* (Prepared by WorleyParsons, February 17, 2010).

*Initial Site Assessment Summary for Parcel 79812 (APN# 8460-006-043, Wal-Mart) Located at 3250 Big Dalton Avenue, Baldwin Park, California, 91706 (Prepared by Caltrans, District 7, August 10, 2010).*

*Update on Initial Site Assessment (ISA) Summary for Parcel 79812 (APN# 8460-006-043, Wal-Mart Real Estate Business) Located at 3250 Big Dalton Avenue, Baldwin Park, California, 91706 (Prepared by Caltrans, District 7, April 14, 2011).*

## **Appendix H      Environmental Commitment Letters**



**DEPARTMENT OF TRANSPORTATION**

DISTRICT 7, Division of Environmental Planning  
120 SO. SPRING ST.  
LOS ANGELES, CA 90012-3606  
PHONE (213) 897-0703  
FAX (213) 897-0685



February 10, 2004

**LETTER OF COMMITMENT**

Dear Representatives of Forest Lawn Covina Hills Memorial Park:

This letter clarifies and documents the commitments being made by the Department of Transportation, District 7 (Department) regarding items of concern identified by Forest Lawn Covina Hills Memorial Park (Forest Lawn) and included in the Negative Declaration/Finding of No Significant Impact (ND/FONSI) for the proposed project to add one High Occupancy Vehicle Lane in each direction on Interstate Route 10 between Interstate Route 605 and State Route 57 (hereafter identified as the 10 HOV project).

This letter also addresses comments in a letters dated September 2, 2003 and December 8, 2003 submitted by Latham & Watkins, LLP on behalf of Forest Lawn, as well as issues raised at a meeting held October 21, 2003 with representatives of Forest Lawn.

**Geological Issues**

Department acknowledges the importance of maintaining slope stability along the Forest Lawn property. The 10 HOV project will be constructed consistent with applicable Department Design Criteria, as stated in the ND/FONSI, page 5-3. As specified in the design criteria, any type of retaining walls will be designed and constructed with a minimum Factor of Safety of 1.5, which will enhance the existing Factor of Safety of the slopes.

Because of the sensitive nature of the use of the Forest Lawn property, any retaining walls constructed by the Department on the south side of Interstate 10 between Freeway Centerline Stations 289 and 362 shall use the construction technique commonly referred to as a Cast in Drilled Hole (CIDH), or "soldier pile", type wall. This type of wall construction technique entails drilling of holes (on the State R/W), casting of retaining "pillars", then removing the excess soil on the down-slope side of the area. By using this construction method the existing factor of safety for these slopes will be maintained during construction, This method will also reduce the need to encroach onto Forest Lawn property and provide enhanced slope stability after completion of the 10 HOV project. Any construction methods requiring tunneling, boring or otherwise under Forest Lawn property will be avoided. Any exception involving potential work on the Forest Lawn property would be done pursuant to a lawfully obtained construction easement.

As requested at the October 21 meeting, we are providing for your reference a list showing a sample of retaining wall heights in the vicinity of Forest Lawn. The list also specifies the locations where the retaining wall will be at the right-of-way line. This data is based on preliminary plans.

The Department's Geotechnical Specialist, Gustavo Ortega, has previously responded directly to Forest Lawn's geotechnical consultants in a separate letter dated October 23, 2003 regarding concerns about historic slope stability issues and previous repairs that the Department had made to the slope.

A detailed geotechnical investigation will be conducted as part of the project design phase. This geotechnical investigation will be completed by professionally qualified staff and will address all potential impacts on slopes south of Interstate 10 between Freeway Centerline Stations 289 and 362, including an evaluation of seismic hazards and the potential for liquefaction. The geotechnical investigation will be forwarded to Forest Lawn upon its completion. Based on this investigation, a design for the proposed walls will be developed to enhance the existing slope stability and ensure public safety. The Department will notify Forest Lawn prior to approval of the final plans and will provide an opportunity for a plan review meeting.

The Department will regularly maintain surface or subsurface drains we have installed on the south side of Interstate 10 between Freeway Centerline Stations 289 and 362.

## **Noise Issues**

Representatives of Forest Lawn, including Latham & Watkins, have consistently stated its position that Forest Lawn should be designated as Category A under the Federal Noise Abatement Criteria (NAC). However, the Department and the Federal Highway Administration (FHWA), position is that cemeteries should be classified as Category B noise receptors ("Highway Traffic Noise Analyses for Cemeteries, Trails, and Trail Crossings", FHWA Office of Environment and Planning Memo HEP-41, June 16, 1995). As noted in the memo, a Category A designation would be reserved for those cemeteries "possessing a special importance, e.g., the Tomb of the Unknown Soldier at Arlington National Cemetery". The Department has not received documentation of "special importance" for the Forest Lawn property that would distinguish it from similar properties and warrant a Category A designation.

We acknowledge that the Final Traffic Noise Study Report and ND/FONSI did not identify the Forest Lawn property as a Category B property. Therefore, the Department has prepared a Supplemental Traffic Noise Study Report to address noise issues at the Forest Lawn property. The analysis focused on whether current noise levels and predicted noise levels with the 10 HOV project exceed the federal noise abatement criteria of 67 decibels (dBA) for Category B properties, and if so, whether the property qualifies for noise abatement measures under the "reasonable and feasible" criteria as outlined in the Traffic Noise Analysis Protocol. The Supplemental Traffic Noise Study Report is enclosed for your reference and is summarized below.

A total of 10 noise measurements have been conducted at various locations within the Forest Lawn property, including 6 short-term (10 minute duration) and 4 long-term measurements (9 a.m. to 3 p.m.). The existing measured hourly average noise levels (without the 10 HOV project) range from 56.7 to 77 dBA Leq, exceeding the NAC of 67 dB at some locations. As indicated in the Final Traffic Noise Impact Technical Report, the 10 HOV lane project is generally predicted to increase noise levels by 1-2 dBA. Based on specific modeling conducted for the supplemental noise study, the project is predicted to increase noise levels by approximately 2-3 dBA along the Forest Lawn property. According to the Caltrans Technical Noise Supplement (TeNS), a 2 dBA increase is not perceivable by normal human ears and a 3 dBA increase is barely perceivable by normal human ears. As described in the ND/FONSI (p. 5-10), this increase is not considered a substantial noise increase. However, the Department incorporates noise abatement measures into projects where existing or predicted noise levels approach or exceed the NAC if it is determined to be reasonable and feasible.

According to the Traffic Noise Analysis Protocol, Section 2.8, Noise Abatement Reasonableness, noise abatement is considered where a frequent human use occurs (p. 9). To assist in determining the frequency of the use at the Forest Lawn property, the Department conducted 2 consecutive field surveys on November 13<sup>th</sup> and 14<sup>th</sup> between the hours of 8:30 a.m. and 3:00 p.m. The surveys were coordinated with Forest Lawn staff and were conducted on the 2 busiest days of the specific week based on the appointment schedule for that week.

Based on our surveys, there were total of 8 funeral services, with 15 to 130 people and duration of 30 minutes to 2 hours each service. There were also total of 222 people visiting about 60 to 70 sites with durations of 10 to 40 minutes per visit. Additionally, this analysis shows that due to the topography along the Forest Lawn property, a soundwall along the property line would only benefit (result in a 5 dBA reduction) at most 300 feet behind the wall. All but one of the services and many of the visitations observed in the survey fell outside of this area.

Due to the small number of services and short duration of visitations in the study area adjacent to the freeway, the Department's determination at this time is that the Forest Lawn property does not qualify as an area of frequent human use. Therefore, it is the Department's position that the construction of soundwalls at the Forest Lawn property is not warranted because the reasonable and feasible criteria were not met.

However, the Department expects to conduct additional environmental documentation for this project due to projected delays in obtaining funding (see next section). During that future evaluation, the Department will conduct studies regarding noise impacts at the site, in consultation with Forest Lawn representatives and make determinations based on the outcome of those future studies.

### **Project Status**

As you are aware, the proposed project has been divided into three separate segments to facilitate the design, right-of-way acquisition, environmental and construction activities. Segment 1 is from 605 to Puente Avenue, Segment 2 is from Puente Avenue to Citrus Avenue and Segment 3 is from Citrus Avenue to State Routes 57/71 and Interstate 210. The environmental analysis as presented in the ND/FONSI assumes the construction of the proposed I-10 HOV project would be done in phases.

The Department is currently hopeful that there will be sufficient funding available to proceed with design and right-of-way support activities of Segment 1 (605 to Puente). The Department is currently working with the Metropolitan Transportation Authority (MTA) to secure the additional funding needed for right-of-way capital (necessary for acquisition purposes) in addition to construction capital and support. The tentative schedule calls for construction of Segment 1 to begin in late 2007.

Because there is a significant funding shortfall to complete Segment 1 of this proposed HOV project, there is no certainty as to when funding would become available to proceed with the final design and subsequently construction of Segments 2 and 3. The targeted date for starting construction for Segments 2 and 3 is late 2010, but given the financial situation the State is in, that date is far from being a concrete commitment.

Due to the extended time frame for the entire project, the Department will need to evaluate the significance of any changes in the project, environmental setting or relevant environmental regulations before proceeding with construction of Segments 2 and 3. This effort will be required pursuant to NEPA/CEQA requirements for an Environmental Reevaluation/Addendum. The Department is making a commitment at this time to consult with Forest Lawn representatives 6 to 12 months in advance of future project construction, as a part of this NEPA/CEQA consultation process. At that future time you will be provided with an additional opportunity to justify a soundwall as a part of Segment 3 construction.

The Department believes that we have responded as successfully as we can at this time to the issues raised by Forest Lawn Covina Hills Memorial Park. Please be mindful that detailed Plans, Specifications and Estimates (PS&E) for this project will be started only when construction funding is available. We are confident that your remaining issues can be resolved during this more detailed PS&E phase. During our previous discussion it was agreed that a document would be prepared to outline the Department's commitments in regards to those issues.

Based on the continuing coordination effort, and the content of the ND/FONSI prepared for the project, the Department is of the opinion that this letter fulfills that agreement. Please be advised that this letter voids and supercedes our previous Letter of Commitment.

The Department is hereby notifying Forest Lawn Covina Hills Memorial Park that the 10 HOV project funding and filing of the Notice of Determination will be placed on the California Transportation Commission (CTC) Agenda for their meeting on February 25<sup>th</sup> and 26<sup>th</sup>. If the CTC takes positive action on these two Agenda Items, the CTC and the Department will be filing the Notice of Determination with the State Clearinghouse about March 1, 2004. As previously noted, these actions are necessary to secure funding for the design and right-of-way acquisition activities for Segment 1 (605 to Puente).

The Department wishes to thank you for your continued cooperation and interest in this vital transportation project. If you have any question or need additional information, please contact me at (213) 987-0703.

Sincerely,

A handwritten signature in cursive script that reads "Ronald Kosinski". The signature is written in black ink and is positioned above the printed name.

RONALD KOSINSKI

Deputy District Director

California Department of Transportation, District 7

**DEPARTMENT OF TRANSPORTATION****DISTRICT 7**

120 S. SPRING STREET  
 LOS ANGELES, CA 90012-3606  
 PHONE (213) 897-0362  
 FAX (213) 897-0360  
 TTY (213) 897-4937



*Flex your power!  
 Be energy efficient!*

August 6, 2003

Mr. Shannon Yauchzee,  
 Public Works Director/City Engineer  
 City of West Covina  
 P.O. Box 1440, Room 215  
 West Covina, CA 91793

**LETTER OF COMMITMENT**

Dear Shannon:

This letter clarifies the commitments by the Department of Transportation, District 7 (Department) regarding certain items of concern identified by the City of West Covina and included in the Negative Declaration/Finding of No Significant Impact (ND/FONSI) for the proposed project to add one High Occupancy Vehicle (HOV) lane in each direction on Interstate Route 10 between Interstate Route 605 and State Route 57 (hereafter identified as the 10 HOV project).

This letter is also in response to conversations that Department Staff (Ron Kosinski and Gary Iverson) had with you about the City of West Covina's concern about these items. During our latest conversation you agreed to send a list of outstanding concerns. We received that list via email on June 23, 2003. Also during that conversation, Ron Kosinski agreed to respond to the City of West Covina prior to issuing the Notice of Determination for this project.

Below are the original City of West Covina comments sent to the Department on December 4, 2002, followed by the responses provided in the ND/FONSI prepared for this project. These are followed by the City of West Covina's subsequent comments (received by email on June 23, 2003), and the Department's commitment responses. The June 30, 2003 email from the City of West Covina did not include additional comments on previous items identified as R5-1, R5-4, R5-6, R5-8, R5-9, R5-12, R5-15, R5-16, R5-18, R5-19, R5-21, R5-22, R5-24, R5-25, R5-26, and R5-28, thus these items are not included in this correspondence).

#1. **Original Comment (Identified as R5-2, R5-5, and R5-17 in response to the City of West Covina's**

**12/4/02 Letter):**

It also appears that the required right-of-way width as presented in the preliminary plans delivered to the City could be reduced in certain critical areas to reduce or eliminate negative impacts on adjacent properties and local streets. The City's Redevelopment Agency will be responding separately since they have an interest in properties affected by this project.

**Response from ND/FONSI:**

The proposed project currently includes design considerations to avoid impacts in the City of West Covina. So much so that our federal partner, the Federal Highway Administration (FHWA), may be reluctant to adopt additional non-standard features. However, the Department will continue to work with the City of West Covina to visit strategies that would reduce right-of-way needs for the proposed project to the extent feasible, consistent with design standard and best professional practices.

**Revised Comment (6/23/03 Email):**

R5-2: What should be considered is moving the CHP enforcement areas as we understand it is an area that would require additional right-of-way. Moving it would reduce the required right-of-way expansion.

R5-5: See R5-2.

R5-17: The proposed CHP area is in an area requiring widening of the ROW with dramatic impacts-the relocation of this CHP area could greatly mitigate the loss.

**Response:**

Extensive studies were undertaken to identify a California Highway Patrol (CHP) enforcement area in a location with the least amount of environmental impact to the surrounding community. The identified proposed location for the CHP enforcement area was specifically selected as the most environmentally sensitive because it does not require any additional right of way. The proposed CHP enforcement area location is achieved by reducing the median width, and utilizing existing Departmental right-of-way.

**#2. Original Comment (Identified as R5-3 in response to the City of West Covina's 12/4/02 Letter):**

The City has significant concerns regarding a number of potential project impacts that have not been mitigated to a level of insignificance. Given that, the City Council and City staff are of the opinion, at this time, that an Environmental Impact Report needs to be prepared.

**Response from ND/FONSI:**

The Department undertook the preparation of an Initial Study/Environmental Assessment (IS/EA) for the proposed project. The IS/EA may have led to the preparation of an Environmental Impact Report/Environmental Impact Statement (EIR/EIS) or to the preparation of a Negative Declaration/Finding of No Significant Impact (ND/FONSI).

The project was designed to be as sensitive to community needs and reduce/mitigate impacts to the greatest extent possible. After examination, it was determined that the project does not contain elements that would significantly impact the communities within the City of West Covina, nor has the City identified issues that are not avoided, or minimized, or mitigated to a level less than significant by the determining agencies. Also refer to....

**Revised Comment (6/23/03 Email):**

This was the City's position (EIR) but may change if these issues are resolved/mitigated based on these discussions.

**Response:**

The Department wishes to point out that this project design was formulated to provide a project with the least impact to the surrounding community, and still met the purpose and need for the project. The proposed project, as designed, contains as many non-standard design features as was acceptable to provide a safe facility, yet minimizes impacts to the surrounding communities.

Furthermore, based on an extensive review of the project impacts by the CEQA Lead Agency (the Department) and the NEPA Lead Agency (Federal Highway Administration) it was determined that the project did not contain significant impacts with the implementation of the identified mitigation, nor has the City of West Covina identified issues that could be considered significant impacts.

As a final note on this issue, the Department wants to assure the City of West Covina (as we have in the past) that the environmental documentation phase is only the first part of a continuous cooperative effort between the Department and the City of West Covina on this and other projects.

**#3. Original Comment (Identified as R5-7 in response to the City of West Covina's 12/4/02 Letter):**

The loss of on-street parking and its impacts to the residents and community have not been studied, tabulated, or addressed.

**Response from ND/FONSI:**

Reduction in parking in the City of West Covina has been studied. Most areas affected by this project are currently designated as "No Public Parking Zones". However, twenty spaces near the City of West Covina City Hall have been identified as being in areas designated for project use. Observations and investigations of these twenty spaces have indicated that they are rarely used, even during times of the year with heaviest use.

**Revised Comment (6/23/03 Email):**

We do not believe the potential loss of on-street parking along the frontage road (Garvey North and South) has been evaluated. Or are we being told that No on-street parking on Garvey other than specifically mentioned is to be lost.

**Response:**

The Department has conducted numerous studies, field reviews, and evaluations to consider the potential loss of on-street parking in the City of West Covina. After completing these extensive efforts our determination is that most of the on-street parking along the frontage roads (Garvey North and Garvey South) will not be impacted by the proposed project. Again, this project was designed to avoid impacts to the surrounding community, this is accomplished by reconfiguring the existing lanes to 11 foot widths, but only if found necessary during the final design phase. In either case, the Department has identified the possibility of retaining the on-street parking in those areas along the frontage roads identified above, with one exception.

This exception is the on-street parking on Garvey South near the West Covina City Hall. As indicated in the final environmental document, the proposed project would impact twenty on-street parking spaces located near West Covina City Hall (this was again confirmed by the Caltrans Design Manager on June, 27, 2003). However, our continuous study of the area identified that these on-street parking areas went primarily unused, even during times of the year with the highest demand for parking in the area. The Department has ascertained that the loss of these unused spaces is not a significant impact.

There are no other on-street parking losses in the City of West Covina as part of the proposed project, except those noted above.

**#4. Original Comment (Identified as R5-10 and R5-13 in response to the City of West Covina's 12/4/02 Letter):**

To avoid leaving the impression of a "concrete jungle", the City would like to see some theme for the design and articulation, artwork of soundwalls and the landscaping. The recent work through the Pomona Valley has resulted in a patchwork of different retaining walls and designs, with many looking like an afterthought and not matching adjacent wall designs. Additionally, what graffiti prevention measures will be in place for signs and soundwalls?

**Response from ND/FONSI:**

As stated in previous meeting with the City of West Covina, the Department will work with City Staff to identify aesthetic treatments to noise barriers to the extent reasonable and feasible. Coordination with the City on landscape design issues will also be conducted.

Efforts to eradicate graffiti are a priority with the Department. As new technologies emerge, the Department examines each for viability. Several strategies exist for dealing with graffiti,

and the most applicable will be determined after consultation with the City on related issues such as noise barrier surfaces and landscape placement.

**Revised Comment (6/23/03 Email):**

It is preferred that vines be grown over walls as much as feasible-propose to add this to ED.

**Response:**

The ND/FONSI for this project states that landscaping will be conducted to the extent reasonable and feasible. The Department acknowledges that the City of West Covina has identified landscaping materials to grow on walls be made a priority, and the Department will make every reasonable and feasible effort to comply with that request.

Be further advised that on Pages 12 and 24 of the Project Report for 117080, and Page 18,29, and 30 of the Project Report for 119340, it describes that artwork on retaining walls, vines, and landscaping will be part of the project, and that funds have been allocated to conduct this work.

**#5. Original Comment (Identified as R5-11 in response to the City of West Covina's 12/4/02 Letter):**

No modification or upgrades to local streets, signals, on/off-ramps, etc., are considered for this project. The project will increase freeway capacity but not these ancillary capacities leaving local streets and access points to the freeways congested. These upgrades must occur prior to or as part of the project.

**Response from ND/FONSI:**

The traffic analysis for the proposed HOV lanes is described on pages 5-28 to 5-33 in the Draft ED. That analysis clearly indicates that peak hour traffic volumes on I-10 will increase substantially between 2001 and 2008/2011 and 2028/2031 (Tables 5-4 and 5-5) under the No Action/No Build Alternative. As shown in Table 5-6 and 5-7, the proposed HOV lanes would accommodate the same number of vehicle trips as forecast under the No Action/No Build Alternative, but would carry substantially more people. Because the volume of vehicles is assumed to be the same under the No Action/No Build Alternative and the proposed project, there will not be a substantial change in traffic volumes on local streets or at the interchanges of I-10. The Department has no jurisdiction over "ancillary" roadways not part of the state highway system. However, implementation of the project is anticipated to reduce congestion on local arterials.

As part of the proposed project improvements to signals will be identified and proposed for implementation. Signal improvements within State jurisdiction may be incorporated into this project. The Department will support efforts by local agencies to implement other signal changes, or improvements to "ancillary" routes.

**Revised Comment (6/23/03 Email):**

We have currently contacted Caltrans about these upgrades to on/off ramp signals under Caltrans jurisdiction. We are told they cannot be done because of budget cuts for traffic counting overtime. How will these upgrades ever be accomplished?

**Response:**

The need to upgrade the current on/off ramps are not part of the purpose and need for this project. However, the Department will prepare a Traffic Mitigation Plan as part of this project, and any needed ramp upgrades would be incorporated in this project if warranted. If the City of West Covina feels that other ramp upgrades are required above those identified in the Traffic Mitigation Plan, the Department will consider those improvements as a separate project after receiving a written request from the City of West Covina.

**#6. Original Comment (Identified as R5-13 and R5-14 in response to the City of West Covina's 12/4/02 Letter):**

R5-13 = The loss of landscaping has not been quantified, nor has any mitigation to this been clearly detailed. The current corridor has green belts both on the freeway and frontage roads side. Quantify this loss, and how will it be mitigated?

R5-14 = The loss of trees has not been quantified. There are numerous large trees along the corridor that will have to be removed. Quantify the loss and how will it be mitigated?

**Response from ND/FONSI:**

Because the project is not in the final design phase, the exact impacts to landscape cannot be quantified at this time. However, as discussed previously with the City of West Covina, every effort will be made to replace vegetation as reasonable and feasible as mitigation.

Additionally, the existing vegetation has reached its mature phase and will soon fail (die), requiring its eventual replacement. Given current budget limitations, any failed vegetation may not be replaced in a timely manner. By providing new, young plants as a part of this project, the community can look forward to an improving landscape, rather than one in decline.

**Revised Comment (6/23/03 Email – Identified as R5-14):**

It is proposed that trees be replaced at a one-to-one ratio.

**Response:** Several surveys were conducted to estimate the number of trees to be removed as part of the proposed project from City-owned right-of-way based on the preliminary design. These surveys found that within City of West Covina property, a total of 148 trees with diameter 12 inches or greater were identified (utilizing City of West Covina standards of importance). Discussions with Departmental Landscape Design Staff members have identified that it is probable that all 148 trees can be replaced in the Departmental right-of-way (a replacement rate of one-to-one as requested by the City of West Covina). Therefore, the statement in the ND/FONSI that vegetation will be replaced as reasonable and feasible is still accurate.

**#7. Original Comment (Identified as R5-20 in response to the City of West Covina's 12/4/02 Letter):**

The closing of both Azusa and Grand Avenue at the same time should be a mitigation measure as these are the only two major north/south routes through the City of West Covina.

**Response from ND/FONSI:**

It appears that this comment intends to request that the Azusa and Grand Avenue ramps not be closed at the same time because they are the two major north/south routes in the city. The Department's general policy is to avoid closing two consecutive ramps at the same time during construction. Prior to and during construction, the Department and its contractors will work closely with the City, during the development and implementation of the project Traffic Management Plan (TMP), in determining the phasing of ramp closures, and developing and implementing a public information program for residents and businesses to ensure they are properly notified and kept informed of ramp closures during construction.

**Revised Comment (6/23/03 Email):**

Azusa and Grand are not consecutive ramps. We propose that only one or the other be closed at the same time as a mitigation.

**Response:**

The Department feels it is possible to not close the Azusa Avenue and Grand Avenue concurrently. This consideration will be included during the project design phase during the mandated preparation of the Staging Plans and Traffic Management Plan for this project.

**#8. Original Comment (Identified as R5-23 in response to the City of West Covina's 12/4/02 Letter):**

The mitigation measure requiring the two consecutive on/off-ramps not be closed may not be sufficient. This mitigation measure could result in five or six closures drastically affecting the City. A limit or cap should be put on the total closures at any one time. Prior to the I-10 freeway, Garvey Avenue was the main street for West Covina. Due to the freeway construction, West Covina's main street was lost to the freeway. Thus the freeway is crucial for east-west circulation throughout the City. The City is served by at least eleven freeway access points that are critical for circulation about and through the City. The closure of several of these points at once would impact the City drastically.

**Response from ND/FONSI:**

Strategies related to the closing of ramps will be coordinated with the City of West Covina and other local agencies. In addition refer to responses to comments 5-20, 5-21 and C-4, earlier in this appendix.

**Revised Comment (6/23/03 Email):**

There are 11 on/off ramps in the city- as mitigation, a maximum number may be closed at any one time, for example, no more than three at a time if feasible.

**Response:**

The Department is mandated to formulate Stage Construction Plans and a Traffic Management Plan. As part of those future efforts, we do not currently anticipate that more than 3 or 4 ramps would be closed at any one time. The Department will work with the City Engineer to ensure that as few ramps are closed at any one time as possible.

**#9. Original Comment (Identified as R5-27 in response to the City of West Covina's 12/4/02 Letter):**

At the public meeting, Caltrans stated that Garvey Avenue would not be reduced; yet the information in the environmental document shows otherwise. The impacts to frontage roads, mainly Garvey Avenue, needs further study and clarification regarding the loss of street width, on-street parking, landscaping, and traffic capacity.

**Response from ND/FONSI:**

The Department's current plans are **not to reduce the width of Garvey Avenue** in the area designated by the individual who made the comment at the Public Hearing. Again, during final design the Department will coordinate frontage road requirements with the City of West Covina. In addition, refer to response to comment R5-8, above.

Comment above read = As currently designed, the proposed project will not result in narrowing of the majority of existing frontage roads. At two location in the City of West Covina, just west of the Mall and at the South Glendora Avenue curve, the encroachment into the frontage road will result in minor narrowing of the frontage road. At the completion of construction, the frontage road will be a minimum of 32 feet (9.75 meters) wide which was the minimum width recommended by the city. Additional design work will be conducted for the areas near the frontage roads during final design. However, the initial designs have determined that the frontage road width travel way will not be reduced except in these two small spot locations and that this will not impact traffic circulation in these areas. Details to provide all applicable mitigation are included in this document.

**Revised Comment (6/23/03 Email):**

See also R5-7. It appears widening will result in the loss of parkways and parking along Garvey Avenue.

**Response:**

See response to item #3 above (in this letter), and to previous responses (above) for response to parking along Garvey Avenue. Also, the Department has always acknowledged that some

right-of-way (parkway) would be required from the City of West Covina. This includes some parkways located between Garvey Avenue and the existing state-owned right-of-way in a variety of areas (as identified on the maps given to the City of West Covina during the October 30, 2002 meeting).

**#10. Original Comment (Identified as R5-29 in response to the City of West Covina's 12/4/02 Letter):**

Based on the foregoing, the environmental impacts of the proposed project have not been mitigated to a level of non-significance and there is substantial evidence that the project may have a significant effect on the environment and that an Environmental Impact Report should be prepared.

**Response from ND/FONSI:**

Comment noted. Refer to response to comment R5-3, above. *Item #2 in this letter.*

**Revised Comment (6/23/03 Email):**

The above mitigation measures may help resolve this issue.

**Response:**

The Department has not seen anything new in the issues raised by the City of West Covina in the June 23, 2003 correspondence. All issues identified were addressed in the ND/FONSI prepared for this project, such that it was determined that the implementation of this project will not result in significant impacts.

This letter is just one of the many times the Department has discussed the project specifics with the City of West Covina. Other occasions include:

- April 30, 2001 - Meeting with the City of West Covina Staff.
- March 27, 2002 - Meeting with City of West Covina Staff.
- October 30, 2002 - Meeting with City of West Covina Staff (provided project layout sheets).
- November 21, 2002 - Public Hearing - City of West Covina Staff present.
- Not included above are the numerous phone conversations with City of West Covina Staff

The Department feels we have successfully responded to all of the issues the City of West Covina wished to have addressed. During our previous discussion it was agreed that a document would be prepared to outline the Department's commitments in regards to City of West Covina concerns. Based on the continuing coordination effort, and the content of the ND/FONSI prepared for this project the Department is of the opinion that this letter fulfills that agreement. However, the Department is committed to continued coordination with the City of West Covina during subsequent project phases.

The Department is hereby notifying the City of West Covina that we will be filing a Notice of Determination with the State Clearinghouse in August 2003, so this project can proceed to other phases of project development. Once again, the Department wishes to thank you for your continued cooperation and interest in this vital transportation project. If you have any questions or need additional information, please contact either myself at (213) 897-0703, or Gary Iverson of my staff at (213) 897-3818.

Sincerely,



RON KOSINSKI  
Deputy District Director

